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HANDBOOK *for* MASTERS

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HANDBOOK *for* MASTERS

BY

W. H. LABOYTEAUX

NEW YORK

THE AMERICAN STEAMSHIP OWNERS' MUTUAL
PROTECTION AND INDEMNITY
ASSOCIATION, INC.

1919

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JOHNSON & HIGGINS
New York

THE DE VINNE PRESS
NEW YORK

TABLE OF CONTENTS

PAGE

Duty of Master

(A) Management and Navigation . . . 1

(B) The Contract of Affreightment . . 18

Loading under Charter 21

(C) In the Event of Disaster 28

Practical Suggestions in Connection with General and Particular Average . . . 37

General Principles Covering Claims under Insurance 47

Usual Proofs of Loss 55

"First Aid" to Stranded Vessels 57

(A) What to Do 59

(B) What to Avoid 64

(C) How the Big Salvage Companies Operate 66

Salvage Reports and Comments

Str. *Manchuria* 68

Str. *Pleiades* 83

Conclusion 86

Index 89

DUTY OF MASTER

(A) MANAGEMENT AND NAVIGATION

The authority and power possessed by the master of a vessel carry with them onerous duties and grave responsibilities. Among others, these pertain to the following matters:

Equipment, Fuel and Stores.

The master should see that his vessel is supplied with all equipment prescribed by law or required by good seamanship and with ample fuel and stores for the voyage she is to undertake. The courts have held unseaworthy a steamer which did not carry 25% more fuel than her anticipated requirements, taking into consideration the weather to be expected at the time of year the voyage is undertaken.

Manning.

The master should select competent officers and crew who are physically fit. Special care should be exercised to avoid the use of men defective in vision or hearing. This is most essential in respect to officers and members of the watch.* The test for color-blindness should always be applied. Some men are naturally dull. Such men should not be used as lookouts, or for other responsible duties, where they cannot be constantly observed.

To insure the good health of the crew, regular daily inspection of the crew's quarters should be made to see that they are well ventilated and kept clean.

Medicine Chest.

Every vessel should be supplied with a medicine chest containing an ample supply of medicines, medical stores,

* The report of Committee of the International Marine Conference, 1889, said regarding the necessary qualifications for officers and seamen and the test for sight and color-blindness: "Every man or boy going to sea as a seaman, or with the intention of becoming a seaman, should be examined for visual power and color-blindness; and no man or boy should be permitted to serve on board any vessel in the capacity of seaman, or where he will have to stand lookout, whose visual power is below one-half normal or who is red or green color-blind."

Prot. of Proc., Vol. III, p. 175.

antiseptic and surgical bandages and supplies, with complete directions for the use of same. All vessels bound to a foreign port, or vessels of 75 tons or upwards bound from an Atlantic to a Pacific port, or vice versa, are required by law to carry such supplies including a sufficient quantity of anti-scorbutics.

Personal Injuries and Sickness.

In the absence of a doctor, the duty devolves upon the master to provide the proper medical attention to any member of the crew or other person on board the ship, who may be injured or sick while the vessel is at sea. If the injury or sickness be such that the patient is likely, by reason of the delay in reaching destination, to suffer serious injury for lack of professional or other attention not available on shipboard, it is the master's duty to put into the nearest port at which such attention may be secured. Decision as to the necessity of putting into port must be made by the master who must use his best judgment in each case. Upon arrival in port, any case of serious injury or illness should be immediately reported to the proper authority (port captain or consul), who should be requested to arrange that the patient be taken to a hospital for proper treatment.*

* If in a foreign port masters of American vessels should apply to the United States Consul, whose duty it is to see that sick or disabled American seamen are properly cared for and furnished necessary medical attendance at the expense of the Government. If in an American port application should be made through the port captain to the medical officer of the United States Public Health service. United States marine hospitals, established for the special purpose of caring for sick and injured American seamen free of expense, are maintained in Baltimore, Md.; Boston, Mass.; Key West, Fla.; Mobile, Ala.; New Orleans, La.; New York, N. Y.; Portland, Me.; Port Townsend, Wash.; San Francisco, Cal.; Savannah, Ga.; and Vineyard Haven, Mass. Contracts have also been made for the year ending June 30, 1919, by the United States Public Health Service with the below mentioned hospitals. By application made through the United States medical officer of the port, free treatment will be furnished American seamen in these hospitals. A sick or disabled American seaman may obtain the benefits of the service by applying in person or by proxy at the office of the United States Public Health Service. Seamen of other countries will be admitted (if there is room) for treatment at all the hospitals named if application is made by the master through the consul of the country to which the vessel belongs. A charge of $1.50 per diem is made for foreign seamen at the United States Marine

Vessel's Liability for Maintenance and Cure and Wages.

Under the general maritime law* the vessel is liable for the maintenance and cure of its officers and crew injured in her service irrespective of the cause, except wilful wrongdoing,† usually until cure is effected or at least for

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hospitals. At the other named hospitals the Government contract rates are charged:

Astoria, Ore.	St. Mary's Hospital.
Apalachicola, Fla.	Dr. Jos. H. Morrow.
Bangor, Me.	Adelbert Chandler.
Bellingham, Wash.	St. Luke's Hospital.
Boothbay Harbor, Me.	St. Andrew's Hospital.
Bridgeport, Conn.	St. Vincent's Hospital.
Brunswick, Ga.	Brunswick Hospital.
Charleston, S. C.	Roper Hospital.
Cordova, Alaska	Cordova General Hospital.
Eureka, Cal.	Sequoia Hospital.
Galveston, Texas	John Sealy Hospital.
Gloucester, Mass.	Addison Gilbert Hospital.
Gulfport, Miss.	King's Daughters' Hospital.
Honolulu, Hawaii	Queen's Hospital.
Hoquiam, Wash.	Hoquiam General Hospital.
Juneau, Alaska	St. Anne Hospital.
Ketchikan, Alaska	Arthur Gates Memorial Hospital.
New Bedford, Mass.	St. Luke's Hospital.
New London, Conn.	The Joseph Lawrence Free Public Hospital.
Norfolk, Va.	Hospital of St. Vincent de Paul.
Pensacola, Fla.	Pensacola Hospital.
Perth Amboy, N. J.	Perth Amboy City Hospital.
Philadelphia, Pa.	St. Agnes Hospital.
Ponce, Porto Rico	Santo Asilo de Dames Hospital.
Port Angeles, Wash.	Olympic Hospital.
Port Arthur, Texas	Mary Gates Hospital.
Portland, Ore.	St. Vincent's Hospital.
Portsmouth, N. H.	Portsmouth Hospital.
Providence, R. I.	Providence Surgical Hospital.
Rockland, Me.	Knox County General Hospital.
San Diego, Cal.	Agnew Sanitarium.
San Pedro, Cal.	San Pedro Hospital.
Seattle, Wash.	Providence Hospital.
Seward, Alaska	Seward General Hospital.
Tacoma, Wash.	Tacoma General Hospital.
Tampa, Fla.	Clara Frye Hospital.
Valdez, Alaska	Mrs. E. Austin.
Wilmington, N. C.	James Walker Memorial Hospital.

* The liability of the shipowner for injuries under Workmen's Compensation Acts, which usually greatly extend the liabilities accruing under the maritime law, remains to be finally settled by the courts.

† The exception of "wilful wrongdoing" would probably exclude sickness or injury occasioned by intoxication. In England the Merchants Shipping Act (1906), § 34, provides:

"(1) If the master of, or a seaman belonging to, a ship receives any hurt or injury in the service of the ship, or suffers from any illness (not being . . . an illness due to his own wilful act or default, or to his own misbehavior), the expense of providing the necessary surgical and

a reasonable time beyond the end of the voyage. Such injured seamen (officers or crew) are entitled to wages until the end of the voyage, unless discharged by voluntary consent before the consul in a foreign port, in which event it appears clear from the Statutes (Act Mar. 4, 1915) that they are entitled to wages only to the time of the discharge. If the vessel is wrecked, wages cease from the date of the loss.

Death of Seaman. Personal Effects.

The master should take charge, upon the death of a member of the crew, of all money, clothes and effects on board belonging to the deceased. The master may, if he thinks proper, cause all or any of such clothes and effects to be sold at the mast or other public auction. He must make an entry thereof in the official logbook and have it attested by the mate and one of the crew, containing the following particulars:

First: A statement of the amount of money left by the deceased.

Second: In case of sale, a description of each article sold and the sum received for such article.

Third: A statement of the wages due the deceased at the time of his death and the total amount of deductions, if any, to be made therefrom.

Within 48 hours after arrival at the first port, if a foreign port, the master must report the death to the United States Consular officer and furnish such information as to the destination of the vessel and probable length of the voyage as the Consul may require, and, if the Consul so demands, deliver to him, upon proper receipt therefor, any effects, money or wages due to the deceased. Similar report and delivery must be made by the master to the United States Shipping Commissioner within 48 hours

medical advice and attendance and medicine, and also the expenses of the maintenance of the master or seaman until he is cured, or dies, or is returned to a proper return port, and of his conveyance to the port, and in the case of death the expense (if any) of his burial, shall be defrayed by the owner of the ship, without any deduction on that account from his wages."

after arrival at the port of destination in the United States.*

Destitute Seamen. Foreign Port.

The master must transport, upon request of a United States Consul, any destitute seamen (not more than one man for every 100 tons burden of his vessel, and provided such seaman has no contagious disease) from a foreign port to the port in the United States to which such vessel is bound. A small allowance is made therefor, depending upon the voyage. Such seamen are required, if able, to do duty during such transportation according to their several abilities. Penalty of $100 for each seaman refused is provided.

Masters should promptly report to the United States Consul at the first port reached regarding any destitute seaman, and make application to the Consul to arrange transportation for such seaman to a convenient home port.

Smuggling.

The master should take proper and reasonable measures to prevent smuggling on the part of the crew.

Discipline.

The master should maintain at all times, in port and at sea, proper discipline on board the vessel. This is not confined to the requirement of obedience to direct orders, but the responsibility is upon the master to see that the officers and crew perform their full duty. Nor does the giving of an order relieve the master from further responsibility; it is his duty to see that his orders are efficiently executed and at the proper time.

Master's Night Order Book.

The master should keep a night order book in which, before retiring, written instructions should be entered as to when he is to be called, and any special orders or reminders regarding the ship's navigation which he may consider necessary. Such orders should be signed by the master, and each officer should, when taking watch, be also required to sign the order as evidence that it has been read and understood by him. Verbal orders may be forgotten

* It is the more common practice on steamers to make an inventory of the effects, all of which are retained and turned over to the Consul if at a foreign port, or to the Shipping Commissioner upon the vessel's return to the United States.

or misunderstood, and for this reason should be avoided as unreliable.

A chart showing the course of the vessel should be left out so that the officer on watch can refer to it.

Change of Watch a Point of Danger.

When changing watch the officer retiring should remain on duty for at least five to ten minutes after his relief arrives. During such time he should acquaint the officer taking the watch of any and all observed conditions having a bearing upon the navigation of the vessel, viz., anything unusual in the behavior of the vessel, the weather and sea conditions experienced, any deviations from courses run, any lead records and any inattention to or tardiness in performing their duties by the deck and engine room watches. This will serve not only to give the relieving officer a proper and necessary understanding of the situation, but will also permit him time to become more fully awake and alert after having been aroused from sleep.

In Respect to Navigation.

The master is at all times responsible for the navigation and management of his vessel. That the vessel may be in charge of a pilot does not relieve him of this responsibility. (See Pilot, p. 9.) He should have a thorough and correct understanding of the Rules of the Road (Collision Rules) and should see that his navigating officers have a like knowledge and that such Rules are always obeyed.

His quarters should be located convenient to the bridge, insuring his quick response to call at any moment of danger.

He should be constantly on the bridge, and in command of his vessel:

When docking or leaving dock;
When navigating in restricted or dangerous waters;
When leaving or entering port or approaching land;

When navigating in a fog in the usual lanes of travel, or when other vessels are in the vicinity; and

When any unusual conditions exist which may require instant decision and action to avoid danger.

Use of Lead.

Certainly no single fault has produced more losses, many of them most disastrous, than undue trust in dead reckoning, and neglect to use the lead at the proper time. The use of the lead should never be delayed until doubt has arisen. Prudent masters use their lead to test their position before they think the necessity exists. A single cast of the lead is of no value, and a vessel's position should be accurately determined by as many casts as are necessary.

Failure to use the lead, when any doubt exists as to the exact position of the vessel, is a gross neglect of duty.

Strandings and Collisions, Cause of.

The enormous loss of life and property resulting from strandings and collisions justifies particular reference to these perils of navigation.

Both in the number of casualties and in the value of property destroyed, these losses exceed those of all the other perils of navigation. To them is also attributable a very large part of the loss of life at sea.

Very few stranding or collision losses are caused by perils of the sea, or lack of knowledge on the part of navigators as to what ought to be done. The vast majority of such losses are distinctly due to human fault, generally to the negligence or the faults or errors of those in charge of the navigation of ships. Some are due to gross negligence or misconduct, but undoubtedly the larger number and in some instances the most disastrous in loss of life and property are the result of over-confidence,—a form of negligence manifested by inattention to duty and failure to observe at all times the well-known and comparatively simple rules of good seamanship.

To over-confidence may be ascribed those losses caused

by failure to take all the proper and reasonable precautions of good seamanship, such for instance as—

A failure to keep a proper lookout.

A failure to thoroughly understand and rigidly observe the collision rules.

A failure to use the lead whenever and as often as may be necessary to definitely locate the position of the vessel when she may be near land and when her position is not positively known.

A failure to make sufficient allowance for the force of tides, currents and winds experienced and to verify the actual position of the vessel by every available means.

The navigation of vessels through dangerous channels or passages during a fog or when the stage of the tide or other conditions are not at their best for such navigation.

There is no justification for a shipmaster or ship's officer who takes the slightest chance which may result in imperiling the safety of his ship except under conditions where such action is made necessary by greater impending peril.

Inattention to duty and a failure to observe the simple precautions of navigation and good seamanship constitute negligence or misconduct in respect to which the Statute of the United States provides as follows:

Death through Negligence, Misconduct, etc.

"Every captain, engineer, pilot or other person employed on any steamboat or vessel, by whose misconduct, negligence, or inattention to his duty on such vessel the life of any person is destroyed, and every owner, charterer, inspector, or other public officer through whose fraud, neglect, connivance, misconduct or violation of law the life of any person is destroyed, shall be fined not more than $10,000. or imprisoned not more than ten years, or both."

Act March 4, 1909, Sec. 282; 35 St. at Large 1144.

Lookouts.

The keeping of a proper lookout is one of the elementary rules of navigation and good seamanship. The Supreme Court of the United States has said:

> "The duty of the lookout is of the highest importance. Upon nothing else does the safety of those concerned so much depend. . . . In the performance of this duty the law requires indefatigable care and sleepless vigilance."

A proper lookout must be actually and vigilantly employed in the performance of that particular duty. It is not a compliance with the requirements if the lookout be also engaged in the performance of other work, nor if he be called away from his post for any purpose. The court has said:

> "Lookouts are valueless unless they are properly stationed and vigilantly employed in the performance of their duty."

A lookout astern is necessary where the maneuvers are such as possibly to embarrass vessels approaching from that direction.

Extra precautions in the matter of lookouts are required when vessels are navigating on a dark night or in a fog or thick weather, especially if in waters where other vessels are apt to be met. Where the conditions require it more than one lookout must be used.

If a low-hanging fog calls for a lookout on the bridge or in the crow's nest, the same conditions require that another lookout also be stationed on the forecastlehead. The courts are insistent that at least one lookout (and more if the conditions demand it) be stationed forward in the "eyes" of the ship and near the water line where he can best see and hear anything ahead.

Pilots.

The mistaken idea prevails among many masters and officers that the presence of a pilot on the bridge of a vessel relieves the master of responsibility in the management and navigation of his ship. Many serious losses have occurred which would have been averted had the master understood and exercised his proper authority.

The American and English laws differ somewhat in respect to compulsory pilotage, but in neither country is the pilot deemed to be in complete command, nor is the master relieved from all responsibility.

The duties of the pilot are never completely those of a master, nor under the American law is the authority of the master ever superseded by that of the pilot. The master remains at all times in full charge of his vessel, and upon him always rests the responsibility for her safety.

It is the duty of the master to see that lookouts are properly stationed, attentive to their duties, and that proper lights are in their places; to say when the weather conditions are not safe for navigation, when it is too foggy to go at full speed or to proceed at all. In fact, with him the decision and responsibility rest in regard to everything, excepting only the indicating of courses to be steered through the channels for which the pilot is employed to navigate the vessel. Even in this, if it is apparent that the pilot is careless, incompetent, or foolhardy, it is the duty of the master to interfere, and if necessary to supersede the pilot. Masters should insist that the pilots obey the collision rules, and upon any failure to observe the rules should interfere, and if necessary to secure observance should displace the pilot.

Under the English law, although the master is not justified in interfering with the navigation of his vessel by a compulsory pilot, or in taking the control of the ship out of the hands of the pilot (unless in the case of manifest incompetence), still the master is not relieved from all responsibility. He remains under certain duties and obligations, a failure to perform which will render the vessel liable for any resulting collision. Among such duties are those of seeing that proper lights and other signals are exhibited; that lookouts are properly stationed, and attentive to their duty; and that all on board render every assistance to the pilot. It is the master's duty to

call the attention of the pilot to any misapprehension of the existing conditions, or to his failure to observe the regulations in respect to giving either direction or fog signals, or to any other breach of the collision rules.

Logbooks.

The manner in which logbooks are kept by some masters and officers makes a word of caution on this subject desirable.

Every vessel is required to keep an official logbook (steamers must keep both a deck and engine room logbook), in which shall be promptly entered any unusual happenings of the voyage and the circumstances under which they have occurred.

The laws of the United States provide that every vessel of the burden of 75 tons or upwards shall have an official logbook, in which entries shall be made of the following matters:

"First. Every legal conviction of any member of his crew and the punishment inflicted;

Second. Every offense committed by any member of his crew for which it is intended to prosecute or to enforce a forfeiture, together with such statement concerning the reading over of such entry, and concerning the reply, if any, made to the charge, as is required by the provisions of Sect. 4597;

Third. Every offense for which punishment is inflicted on board, and the punishment inflicted;

Fourth. A statement of the conduct, character and qualifications of each of his crew; or a statement that he declines to give such particulars;

Fifth. Every case of illness or injury happening to any member of the crew, with the nature thereof and the medical treatment;

Sixth. Every case of death happening on board, with the cause thereof;

Seventh. Every birth happening on board, with the sex of the infant, and the names of the parents;

Eighth. Every marriage taking place on board, with the names and ages of the parties;

Ninth. The name of every seaman or apprentice who ceases to be a member of the crew otherwise than by death, with the place, time, manner and cause thereof;

Tenth. The wages due to any seaman or apprentice who dies during the voyage, and the gross amount of all deductions to be made therefrom;

Eleventh. The sale of the effects of any seaman or apprentice who dies during the voyage, including a statement of each article sold, and the sum received for it;

Twelfth. . . . In every case of collision in which it is practicable so to do, the master shall, immediately after the occurrence, cause a statement thereof, and the circumstances under which same occurred, to be entered in the official logbook. . . .

Every entry hereby required to be made in the official logbook, shall be signed by the master and by the mate, or some other of the crew, and every entry in the official logbook shall be made as soon as possible after the occurrence to which it relates, and if not made on the same day as the occurrence to which it relates, shall be made and dated so as to show the date of the occurrence, and of the entry respecting it; and in no case shall any entry therein, in respect of any occurrence happening previously to the arrival of the vessel at her final port, be made more than 24 hours after her arrival."

A fine of $25 is imposed upon the master for any case in which a logbook is not kept in the manner required.

The courts look with suspicion upon a failure to keep the logbooks in the manner prescribed by the statute.

Entry should also be made in the logbook of any and all unusual happenings of the voyage, including heavy weather, storms, strandings, touching bottom, or other event, which, by any possibility, could cause loss or damage to the ship or cargo.

Masters and officers are especially cautioned against making alterations or changes in an entry once made. Should it become necessary to correct an entry, because of an error, it must be done without defacing the original entry other than by drawing a line through the erroneous entry and leaving it legible as first written. Erasures or any attempt to deface, destroy or make illegible what has once been entered in a logbook should never be permitted, as any such attempts are looked upon by the courts as attempts to conceal the truth.

The statutes of the United States provide that—

Duty to Stand By in Case of Collision.

> "In every case of collision between two vessels it shall be the duty of the master or person in charge of each vessel, if and so far as he can do so without serious injury to his own vessel, crew and passengers (if any), to stay by the other vessel until he has ascertained that she has no need of further assistance, and to render to the other vessel, her master, crew and passengers (if any), such assistance as may be practicable and as may be necessary in order to save them from any danger caused by the collision, and also to give to the master or person in charge of the other vessel the name of his own vessel and her port of registry, or the port or place to which she belongs, and also the name of the ports and places from which and to which she is bound. If he fails so to do, and no reasonable cause for such failure is shown, the collision shall, in absence of proof to the contrary, be deemed to have been caused by his wrongful act, neglect, or default."

A failure without reasonable cause to obey this law carries a penalty of $1000, or imprisonment for a term not exceeding two years.

Fitness of Vessel to Carry Passengers and/or Cargo.

It is the duty of the master at all times to see that his vessel is in a seaworthy condition, supplied with sufficient and proper dunnage, and in all respects fitted to carry, without damage, such cargo as she may undertake to transport. He should make frequent and careful inspections of the ship to ascertain if there be any deficiencies or defects which might result in accident or injury to passengers, crew, or others, or through which cargo might be damaged. Any such defects found should be immediately reported to the owner and repaired.

Care should be exercised that the tanks, holds, bilges, and all pipes, sluices and scuppers are clean and in good working order before a new cargo is loaded. Bilges should be carefully sounded during the voyage and kept free from water. They should always be examined and cleaned after discharge of each cargo and before new cargo is taken on board.

A vessel with unclean holds, choked bilges or any defect which may cause damage to the cargo carried is not

seaworthy for the carriage of such cargo, even though her condition may be such that she will reach her destination without difficulty. Seaworthiness implies fitness to carry, without damage, all such cargo as she may accept for carriage.

Some owners follow the practice of having their vessels surveyed by recognized surveyors before loading, to determine their general condition and fitness to carry the cargo to be laden. Although a wise precaution, this is not essential except where the charter party specifically provides for a certificate from a surveyor. The principal advantage derived from having an outside surveyor is to make sure that a proper examination is made. It also serves to establish the use of due diligence to make the vessel seaworthy, thereby entitling the owner to the exemptions from liability provided in the Harter Act.

Where such examination is made by a surveyor, a written report should be obtained, showing the condition of the holds, bilges, sluices, etc., and the general fitness of the vessel to carry the particular cargo for the voyage which she is to undertake.

A thorough examination (a perfunctory examination is of little value) of the vessel made by the master and officers should accomplish the discovery and reparation of any conditions wherein the vessel is unfit. Entry should be made in the logbook of the examination, showing the condition of the holds, bilges, sluices, etc., and of any work done to put them in fit condition.

Special Equipment. Ventilation.

Cargo requiring special equipment for its safe carriage should not be accepted for transportation by vessels which lack such equipment. For example, vessels not fitted with ample ventilating facilities should not attempt to carry cargo requiring free ventilation. The acceptance of cargo for carriage places upon a vessel the responsibility for the proper attention and care necessary to that particular cargo during the voyage. The master should, therefore, inform himself regarding the needs of the

cargo and the extent of ventilation or other care necessary or desirable. Cargo of a character likely to be damaged by sweat, particularly if the voyage involves considerable changes in temperature, should receive special care in ventilation during the voyage. If necessary, humidity tests should be taken.

Stowage, Care and Custody of Cargo.

Although in some trades it is the practice to place the loading, stowage and discharge of cargo under the direct charge of the first officer, this does not relieve the master, for he is charged with the responsibility of seeing that the first officer properly performs his duty in regard thereto.* He must see that the cargo is properly stowed with respect to the safety and trim of the vessel, viz., that the weight is so distributed throughout the vessel as to maintain the proper buoyancy and equilibrium.

He must also determine how much cargo (under or on deck) the vessel can safely carry, and upon him rests the responsibility of seeing that she is not too heavily laden, either for sea or for the waters through which she is to be navigated.

It is his duty to see that the cargo is laden without damage; that it is stowed both as to location and manner so that it will carry to destination without damage to itself or other cargo; and that it is discharged without damage.

Care should be taken to prevent broaching or pilfering of the cargo while loading, on the voyage, and during discharge.

Cargo susceptible of damage by heat must be stowed in a cool place.

Cargo which may damage other cargo, either through drainage, leakage, dampness, odors, or other causes, must be so separated as to prevent such damage. For instance, kerosene, fish, or other cargo carrying a strong and per-

* In some of the regular line steamship companies, arrangements are made whereby the loading and discharging of cargo at some of the principal ports are under the direct charge of the management, and the captain is relieved from responsibility for such work at those ports. In other ports, however, the Master's responsibility continues.

meating odor, must be kept away from flour or other cargo which would be contaminated or damaged thereby. Coke or similar cargo carrying moisture must be thoroughly separated from cement or other cargo which readily absorbs moisture and is damaged thereby.

Stowage on Deck.

The carriage of cargo on deck is permitted where it is the usage and custom of the trade. Such custom exists more generally in the lumber trade and in some of the coastwise trades. The master, however, is charged with the responsibility that such cargo be properly stowed and secured.

Any cargo to be carried on deck must be clearly so described in the Bill of Lading. Goods carried "on deck" without the consent of the shipper or not shown by the Bill of Lading as being "on deck," will render the vessel liable for loss or damage sustained thereby, even from excepted perils. Except in those trades where the custom is well established or the goods are of that dangerous class prohibited by law from being stowed under deck, the carrying of cargo on deck is presumed to be improper and should be avoided.

Vessels under Charter, with Right to Charterers to appoint Stevedores.

Some charter parties give to the charterers the right to appoint (but ship to pay) the stevedores for the loading or discharge of cargo. In such cases the loading, stowage and discharge of the cargo should be most carefully watched to see that it is properly done. The right given the charterers to appoint stevedores does not in any way lessen or impair the right and duty of the master to determine how the cargo shall be loaded and stowed, and in the event of such stevedores declining to comply with the master's instructions, the latter may and should refuse to permit them to proceed with the work, and employ others. Nor does the appointing of stevedores by charterers relieve the vessel from liability for damage caused by improper loading or discharge of cargo.

Instances have occurred where cargo of a character requiring special stowage has been tendered for carriage

after the loading has progressed beyond the point where such cargo could be safely stowed without danger of damage to other cargo already laden. To avoid this difficulty the master should, before commencing to load, require of charterers information in writing as to what cargo is to be carried. With this information the plan of stowage should be so arranged that all lawful cargo may be properly stowed. If, after taking such precautions, charterers should tender cargo which, on account of cargo previously laden, cannot be properly stowed without endangering the ship, the cargo offered, or other cargo, the master is justified in refusing to accept it. If, however, when such cargo is tendered it is possible to stow it without endangering any of the interests involved, the master is required to accept and properly stow such cargo although it may not have been included in the cargo originally specified.

(B) THE CONTRACT OF AFFREIGHTMENT

The vessel is responsible for the proper care of the cargo from the time it is received until proper delivery is made. If cargo received in sound condition is delivered in damaged condition the vessel is liable for the loss unless it can be shown that the damage was caused by an excepted peril.*

All cargo is presumed to be in sound condition when shipped, unless the documents show it to be in damaged condition. At the time cargo is tendered for shipment it is important that it be subjected to such examination as will determine its apparent condition.

Ship's Receipt for Cargo.

The receipts given to shippers (either mate's receipts or tally clerk receipts) should contain notation of any damage, or any possible indication of damage, such as stained, broken or fragile packages. Cargo in packages, the contents, quality and weight of which are not positively known to the ship, should be receipted for as "contents, quality and weight unknown."

Bills of Lading.

A bill of lading is not only a contract of carriage but is also a formal receipt by the vessel for the goods shipped, and (unless otherwise shown thereon) has the effect of acknowledging the shipment to be in apparent good order and condition. Manifestly, a vessel cannot properly issue a receipt (bill of lading) for goods until they are actually in her possession. Also, a bill of lading (as a receipt) must correctly state the quantity (number of packages and weight, or measurement) and kind of goods, and the condition in which they were received. If the cargo is in packages, the contents, quality and weight of which cannot be known by the ship, the bills of lading should contain the clause, "contents, quality and weight unknown."

Bills of lading being, in some instances, negotiable

* Perils as to which the vessel is exempted from liability by law or by the terms of the contract of affreightment. See suggested exemption clauses for bill of lading on p. 25, note.

documents by which ownership of the goods may be transferred to others, the vessel is held to a strict responsibility to an innocent holder of a bill of lading for any inaccuracies or misrepresentations contained therein. Masters should not sign bills of lading except in exchange for the ship's receipt and should use care that any bill of lading issued is accurate and contains all details shown on the ship's receipt.

Notation regarding Cargo received in Damaged Condition.

If the cargo when received shows any external evidences of damage, mention thereof should always be made on the bill of lading. Shippers usually object to any notation of damage appearing on the bill of lading. A written statement from the shippers that the cargo was in damaged condition when the shipment was made, or a notation of damage on a mate's receipt, will not relieve the vessel from liability as against a claim made by an innocent holder of a bill of lading (not showing the damage). To protect the vessel against such claims, the only certain way is to describe clearly on the bill of lading the condition in which the cargo was received.

Masters should, therefore, refuse to accept damaged goods for carriage unless such damaged condition of the goods is clearly shown on the bill of lading issued therefor.

Freight.

Unless otherwise specified in the Contract of Affreightment (charter party or bill of lading), freight is payable upon completion of the carriage, viz., when the cargo has been transported to, and is ready for delivery to the consignee at the port or place where the carrier has agreed to deliver it.

If, through excepted perils, the ship or the cargo, or both, are so badly damaged that the voyage cannot be completed and is abandoned, freight is not earned and none is payable. In that contingency, the master has the right, and it is his duty, provided the cargo is in fit condition, to forward it to destination in other vessels and thereby earn the freight. If the owner of the cargo

should elect to take delivery at an intermediate port he thereby waives his right to delivery at destination and becomes liable for the freight.

The payment of freight is not contingent upon the cargo being delivered in sound condition. The full freight is payable even though the cargo be damaged, provided it is delivered in specie. Freight would not be earned, however, where the character of the cargo shipped had been completely changed by reason of damage, as, for instance, if a shipment of wheat had been so damaged as to become a sodden mass of decaying matter no longer fit to be classed as wheat.

Freight cannot be collected for any part of the cargo which has been totally lost or destroyed, for freight is earned only on such portion as is delivered or tendered for delivery.

The above general rule may, however, be modified by the terms of the contract of carriage. Shipowners may stipulate for prepayment of freight. Such contracts are valid, and, containing the provision "Prepaid freight to be considered earned, ship and/or cargo lost or not lost," the shipowner is entitled to retain the freight even though delivery be prevented by an excepted peril.

Prepayment of freight, or advanced freight, does not in itself, however, entitle the shipowner to retain the same unless the contract is performed and the cargo delivered at destination, or unless the contract by its terms provides that the freight may be retained in the event of failure to deliver.

Lien for Freight and/or other Charges.

The shipowner has a lien upon the cargo for freight due, as well as for other charges incurred for the benefit of cargo, as, for instance, advanced charges, general average, salvage and special charges (see page 43).

The shipowner is entitled to retain possession of the cargo until all liens for freight or other charges are paid, or proper security is furnished for their payment. If the cargo be delivered, or pass out of the possession of the

shipowner, the lien is lost. Masters should be careful not to lose possession of the cargo until their claims against it are paid or properly secured. Where cargo is placed in warehouse under the exclusive control of the master or shipowner, to be held until the lien is satisfied, there is not such a delivery as would destroy the lien.

Bills of Lading should not provide for payment of freight *after* delivery of cargo. Such provision effectually destroys the shipowner's lien for freight.

LOADING UNDER CHARTER

The master whose vessel is being loaded under charter should also use care in respect to the following:

Cesser Clause.

Charters frequently contain the stipulation, **"Charterer's liability to cease when the ship is loaded, the master having lien upon the cargo for freight, dead freight, and demurrage,"** or a clause of similar import. This is commonly known as the "Cesser Clause." The purpose of the clause is to grant the charterer a release from any further responsibility under the charter party, after completion of the loading, and to require the ship to look to its lien upon the cargo, and under the bill of lading, for the payment of hire and/or any amounts due under the charter.

Ordinarily the security upon which the vessel can best rely for the payment of charter hire is the lien on the cargo for the freight as per bill of lading. This lien is usually preserved to the vessel by a specific provision in the charter party. As the only other security available to the ship and/or owners for the payment of charter hire is the credit of the charterer—and those that are the strongest financially sometimes become involved—this lien on cargo should be kept unimpaired. This precaution becomes even more essential if the cesser clause is in the charter party. Masters should therefore, before signing bills of lading, see to it that the bill of lading

freight to be collected upon delivery of the cargo is at least equal to the amount of charter hire and/or other sums to be due the ship upon completion of the voyage. Failing this (unless specially authorized by the owners to the contrary), the master should decline to sign bills of lading until the charterer either pays the difference between the amount of freight collectible upon delivery of cargo and the amount which will be due the ship at that time, or shall have furnished such ample security for the payment of the charter hire as may be reasonably required. Where such security is furnished and the charter contains a cesser clause, it is necessary that an agreement in writing from the charterer waiving this clause be secured.

Dead Freight and Demurrage.

It is questionable whether at common law a shipowner has a lien on the cargo for dead freight and/or demurrage. Ordinarily such claims accrue under a charter party or other form of contract of affreightment which, by its terms, specifically grants a lien upon the cargo therefor. No lien for demurrage or detention damages incurred at the loading port or before the bills of lading are signed will exist upon the cargo (even though the charter party gives a lien therefor) unless such claim is plainly specified on the bills of lading. The provision in the bill of lading, "freight as per charter party," will not protect the lien for such a claim.

Charges of any nature, including dead freight and demurrage, which have accrued or been incurred prior to the issuance of the bills of lading, and for which a lien on the goods is claimed by the vessel, must be shown on the face of the bill of lading.

Section 25 of the Act of Congress of August 29, 1916, provides:

> "That if an order bill is issued the carrier shall have a lien on the goods therein mentioned for all charges on those goods for freight, storage, demurrage and terminal charges, and expenses necessary for the preservation of the goods or

incident to their transportation *subsequent* to the date of the bill and all other charges incurred in transportation and delivery, *unless the bill expressly enumerates other charges for which a lien is claimed.* In such case there shall also be a lien for the charges enumerated so far as they are allowed by law and the contract between the consignor and the carrier."

The showing of such claim on the bill of lading is particularly important where the vessel is loading under a charter party containing a cesser clause. If bills of lading are signed without noting thereon a claim for dead freight or demurrage which has accrued prior to their issuance, the lien for the same against the cargo may be lost and the claim against the charterer will fail because of the release given by the cesser clause. Should the amount of, or claim for dead freight and/or demurrage and/or other charges be disputed, unless the charterer shall have furnished such ample security for the ship's claim as may be reasonably required and, if the charter party contains the cesser clause, shall have agreed in writing to waive it, the safer course is to note upon the bill of lading the full amount claimed. In Carver on "Carriage of Goods by Sea," Sixth Edition, Sec. 671, it is said:

"In the same way the lien given by the charter party for dead freight and/or demurrage cannot generally be maintained as against shippers, or assignees for value, unless the bills of lading expressly incorporate those terms of the charter party. When the bill of lading expresses that the consignee is to pay 'freight and all other conditions as per charter party,' the conditions of paying the dead freight and demurrage due under the charter before getting delivery are brought in, and the liens are preserved."

Also, Sec. 675, it is said:

"The general result seems to be, that where the master or agent of the shipowner gives a bill of lading which does not so incorporate the terms of the charter party as to make the liens given by the charter party—whether for freight, dead

freight, or demurrage—part of the bill of lading contract, then those liens cannot be maintained,

(1) As against strangers to the charter party who have shipped under the bill of lading; or

(2) As against assignees for values of the bill of lading, whether from strangers to the charter party;

even though they had notice of the existence of the charter party; unless the master had not authority to give the bill of lading and they had notice of that; or unless they were put upon inquiry and that would have shown the absence of authority."

It would, therefore, seem to be the safer course to note upon the bill of lading the actual charges for which a lien is claimed.

Charter Party Clause.

The clause **"Master shall sign bills of lading as required by charterer without prejudice to the charter party"** which appears in many charter parties is not to be taken literally. It does not give to the charterer unlimited power of decision as to the character and terms of the bill of lading, and does not mean that the master must sign any and all bills of lading which may be presented to him for signature by the charterer. The charterer can only require the master to sign bills of lading which are consistent with the terms of the charter party, and which give to the vessel the same protection as she has under the charter party. Although under the clause the charterer assumes the responsibility and is liable to the shipowner for any damages which the latter may be put under by reason of improper bills of lading issued upon their demand, the vessel is primarily responsible to an innocent holder thereof, for any bill of lading issued by the master. As a practical question, therefore, it is necessary to look beyond the mere letter of this guarantee to the financial responsibility of the charterer, which may or may not be sufficient to meet the liabilities which accrue thereunder.

The clause does not empower the master to sign bills of lading contrary to the facts: for cargo as in good con-

dition when it shows evidence of damage; for cargo before it is received by the vessel; for more cargo than is laden; for cargo stowed on deck without showing it on deck;—nor to sign bills of lading by which the freight is payable to charterer.

Charter Conditions vs. Bill-of-Lading Conditions.

As against innocent holders of a bill of lading—shippers or assignees for value—the conditions of the charter party are not incorporated in the bill of lading by the use of the words "freight and all other conditions as per charter party." These words are interpreted to refer only to payment of freight—conditions to be performed by the receiver of the goods. They do not alter the express stipulations of the bill of lading nor bring into the bill of lading the conditions and exemptions which the charter party may contain for the protection of the interest of the vessel or her owners. Nor does the use of the above clause put an innocent holder of the bill of lading upon such notice that he is bound to inquire as to the conditions of the charter party.

Carver on "Carriage of Goods at Sea," Sixth Edition, Sec. 160, makes this clear:

> "When the bills of lading are in the hands of strangers to the charter party, either as original shippers or as indorsees to whom the property has passed, they show the contract under which the goods are being carried; and the shipowner's claims, exemptions, and liens on the cargo, given by the charter party, are not preserved as against such shippers or indorsees, except so far as those terms of the charter are expressly incorporated in the bill of lading."

A master should therefore, unless he has consulted with owners and received different instructions, see to it that those conditions and exemptions in the charter party (similar to the clauses given below*) necessary for the protection of the interests of the vessel are incorporated in the bill of lading before they are signed.

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* It is mutually agreed that the vessel shall not be liable for loss or damage occasioned by causes beyond its control, the perils of the sea or other waters; by fire from any cause and wheresoever occurring; by

The provisions in the charter party in respect to the adjustment and payment of General Average should always be incorporated in the bill of lading.

As has already been stated, any attempt to incorporate the conditions of the charter party in the bills of lading by use of a general clause is dangerous and is likely to fail in the purpose intended. When, however, this is attempted the clause used should be made as completely comprehensive as possible, for instance:

> "This bill of lading is issued under a charter party, all of the provisions of which, including exceptions and exemptions from liability, are incorporated herein, and shall prevail even if in conflict with the express terms hereof. Freight, dead freight and demurrage payable as per charter party."

---

barratry of the master or crews; by enemies, pirates or robbers; by arrest and restraint of princes, rulers or people, riots, strikes or stoppage of labor; by explosion howsoever or wheresoever occurring; by bursting of boilers, breakage of shafts, or any latent defect in the hull, machinery or appurtenances, or unseaworthiness of the ship whether existing at the time of shipment or at the beginning of the voyage but not discoverable by due diligence; by collisions, strandings or other accidents of navigation of whatsoever kind, even when occasioned by the negligence, default, or error in judgment of the pilot, master, mariners or other servants of the shipowner, not resulting, however, in any case, from want of due diligence by the owners of the ship or by the ship's husband or manager; nor by heating, decay, putrefaction, rust, sweat, change of character, drainage, leakage, breakage, or any loss or damage arising from the nature of the goods or the insufficiency of packages; nor for land damage; nor for the obliteration, errors, insufficiency, or absence of marks or numbers, address or description; nor for risk of craft, hulk or transshipment; or for any loss or damage caused by prolongation of the voyage.

This shipment is subject to all the terms and provisions of, and all exemptions from liability contained in the act of Congress of the United States, approved on the 13th day of February, 1893.

If the shipowner shall have exercised due diligence to make the vessel in all respects seaworthy and properly manned, equipped and supplied, it is hereby agreed that in case of danger, damage or disaster resulting from faults or errors in navigation or in the management of the vessel or from any latent or other defects in the vessel, her machinery or appurtenances, or from unseaworthiness, although existing at time of shipment, or at the beginning of the voyage (provided the defect or unseaworthiness was not discoverable by the exercise of due diligence), the shippers, consignees or owners of the cargo shall nevertheless pay salvage and any special charges incurred in respect of the cargo and shall contribute with the shipowners in general average to the payment of any sacrifices, losses or expenses of a general average nature that may be made or incurred for the common benefit or to relieve the adventure from any common peril.

Vessels under Charter. Notice of Readiness to Load.

When a vessel is under charter the master should be particular to see that written notice of vessel's readiness to load is presented to charterers or their agent at the earliest possible moment, and in this notice the hour it is presented should be stated. Should demurrage be incurred, it is advisable that the master safeguard the vessel's interests by giving to the charterer, his agent or consignee, written notice each day that the vessel is on demurrage.

(C) IN THE EVENT OF DISASTER

In respect to Passengers.

When passengers are on board it is the imperative and first duty of the master and officers to provide for their safety and comfort. They should, so far as possible, be guarded from every unnecessary risk and be placed in safety at the first opportunity.

In respect to Vessel and Cargo.

Having control over both ship and cargo, the master is responsible for their safety. He is agent for all concerned, but only to the extent that he can, by his actions, save and preserve the property committed to his care from further loss or damage. His authority to act for the owners of the property will permit him to do what the owner, if present, ought to do. His actions are subject to review and should be such as will bear the closest scrutiny, both as to his integrity and his good judgment.

It is the master's duty to save and preserve the property without regard to ownership. Neither should the matter of insurance upon ship or cargo influence his efforts to minimize the loss.

It is specifically his duty—

To immediately notify his owners, if possible, by telegraph or cable, of the time, nature and extent of the disaster;

To take immediately such steps as are necessary to relieve the ship and cargo from the threatening danger; and

To carry out these measures at the least possible cost.

If his vessel be at a port of distress, where repairs are necessary, the responsibility is his to see that proper surveys are held upon the damage (see Surveys, p. 51), that the repairs are made at a reasonable cost, and that no unnecessary or unreasonable expenses of any nature are incurred.

Sale of wrecked or damaged Vessel or Cargo.

Although the master of a vessel has, under certain circumstances in cases of urgent necessity, the power to sell ship and/or cargo, his authority to do so depends entirely upon, and is not more than can be justified by, the conditions existing. He is authorized to act only because it is necessary for some one to do so and only in cases where the necessity for such action exists. His authority is developed, as his powers are limited, by the necessities of the emergency.

His acts must be directly or indirectly for the benefit of the interest sold, considering the situation in which it is placed by the accidents of the voyage.

The sale of the ship or cargo should always, if possible, be avoided, without first obtaining the consent of the owner of the property. As by the use of the telegraph or cable it is now practicable to communicate with the owner of vessel and/or cargo from nearly every port where a legal sale could be made, it would require an extreme and rare case to justify the selling of ship or cargo without first obtaining instructions from the owner.

The sale of wrecked or damaged property without the consent of the owner thereof can only be justified in those cases where the property is in danger of immediate destruction by perils beyond the control of the master and where the delay necessary to obtain such consent will be prejudicial to such property. For instance, if a vessel be on the rocks in such a position that it is *impossible* to save her and she is in immediate threatening danger of breaking up, the master may act upon his own responsibility and sell her. Or, if the cargo be damaged and in further danger of destruction by decay, which it is impossible to arrest, then a prompt sale may be the only method of saving anything for the owners. Even in these cases, however, the master should, wherever possible, protect himself by obtaining the opinion of experts in the form of written reports and recommendations.

Where no further serious damage will result from the

delay which may be necessary to communicate with the owners of the damaged property, it is the duty of the master to obtain the consent of such owner before the property is sold. In such case there is no necessity, hence no lawful power to sell. A master who sells when the necessity is not absolute, can convey no title to the purchaser. His act being invalid, the owner has no recourse against the insurers of the property. While, therefore, an unauthorized sale may place the property beyond the reach of the owner in a foreign country, the latter will certainly fail to recover his insurance.

Masters are warned against the farce of selling property at points where there are no bidders, even though they may look upon the property as irreclaimably lost. A sale of a stranded ship for a few dollars to a solitary fisherman, or to the master of a near-by vessel, is not a legal sale. The master's duty in such case is the limit of his power. He should do his best to protect the property during his absence by appointing an agent to care for it and then should notify his owners from the nearest point of communication, leaving it to them to decide what course should be taken. The intention of returning to the vessel should, as far as possible, be made manifest by notices left with an agent to show to others who may come there, or by notices placed on the ship. A notice left with an Esquimaux in the Arctic has been decided by the courts to be good notice that the master had not abandoned the ship and cargo. On the other hand, cargo sold by a shipmaster in the Arctic, when the only bidders were other shipmasters, was held to be illegal and an unauthorized act by the master.

Accidents on board ship. Personal Injury and Cargo Claims.

Experience has shown that upon the happening of an accident on shipboard, in which loss of life or personal injury is involved, or in which cargo has sustained damage, the chances are that whether or not the vessel is at fault, claims will be made against the ship for damages. Large sums of money are expended annually by shipowners in the litigation and payment of such claims.

Many of them are valid, while others are claims for which the ship would not be liable if the facts were accurately known and proved. The liability of the ship often results from an inability to establish the exact cause of the accident or damage.

It is, therefore, essential upon the happening of any accident on board the ship, especially where loss of life or personal injury is involved, or where the cargo is found damaged, either before or after discharge, that the cause of the accident or damage be promptly determined. This is necessary to save litigation and to secure the prompt payment of claims for which the vessel may be liable, as well as to defeat claims for which no liability exists, and to make possible proper precautions against a recurrence of the accident. Neglect or fault on the part of any of the officers, crew or stevedores should be promptly reported, for the inclination shown in some cases to shield those guilty of neglect usually results in tedious and expensive litigation which would, and should, be avoided by a frank statement of the exact facts.

Prompt Investigation to determine Cause.

The master should immediately make such careful and thorough investigation of every accident as will determine the cause. To this end he should immediately personally examine the place where the accident occurred, carefully noting any conditions or defects which could by any possibility have caused it or contributed to it. If the accident was due to the giving way of any of the ship's equipment, tackle or gear, such article or broken parts thereof should be carefully sealed and put aside for future use. All witnesses to the accident should be thoroughly questioned and written statements of their knowledge taken from them. Should differences develop in the reports given by different witnesses, such differences should at once be thoroughly investigated and cleared up, and, as nearly as possible, the exact facts should be ascertained. The full names and addresses of all witnesses should always be taken.

[FORM FOR REPORT OF PERSONAL INJURY]

1.—Person injured:

Name .....

Occupation .....

Address .....

2.—In whose employ.....

3.—Name of steamer in connection with which accident occurred.....

4.—Date, hour and place of accident; if on board, on what part of steamer.....

.....

5.—Describe fully what was being done, how the accident happened, and nature of the injuries.

.....

6.—Was steamer loading or discharging? From or to dock or lighter?.....

.....

7.—What machinery or gear was in use, and was it in good order?.....

.....

8.—(*a*) Was the man perfectly sober?.....

(*b*) Was he careless?.....

(*c*) Was any other person at fault? If so, who and in what way?.....

9.—Name of person in charge or superintending work at time of accident.....

10.—(*a*) Injured person's age?.....

(*b*) Married or single?.....

(*c*) Weekly wages? .....

(*d*) How long in employ?.....

11.—State what was done for the man after the accident, with name of attending physician or hospital, if any.....

.....

12.—State probable period of disablement.....

13.—Give statement, if any, made by injured person.....

.....

Signature..... .....

Date.....

NAME OF WITNESSES.	ADDRESSES.
.....	.....
.....	.....

The master should send to the owners at the first opportunity, a written report (see form on opposite page) containing full particulars of the accident, accompanied by the signed statements of witnesses or his notes of what they said.

Damage to Cargo.

Where cargo has sustained damage discovered before or after discharge, the same thorough investigation should be made by the master, and a similar written report of his findings promptly made to the owners.

Damage to Docks.

Damage done to docks or wharves should also be promptly reported. If the damage is caused by fault in the handling or managing of the vessel, she is liable therefor. No liability, however, exists against the vessel unless the damage was caused by her fault.

In the event of claim being made against the ship for personal injury or for damage to cargo, or to docks, the master should immediately notify the owner, furnishing full information as to the cause, nature and extent of the loss, as shown by his investigation.

Master should not admit Liability.

Under no circumstances should the master admit liability on the part of the vessel unless and until he has been authorized by the owners to do so.

Note of Protest.

A Note of Protest should invariably be made whenever during the course of the voyage bad weather or accident of any nature has been experienced, which it is believed may have occasioned, or may later occasion, damage to either vessel or cargo.

The Note of Protest must be made by the master (or other officer in command) before a Notary Public, or Consul, or other qualified official, within twenty-four hours after arrival at first port following the incident which makes it necessary. The Note of Protest should be a simple recital of the occurrence, without any details, reserving the right to extend the protest afterwards.

It is a prudent course to note the protest whenever anything unusual happens during the voyage, whether resulting damage is expected or not. (See form on reverse of this page.)

[USUAL FORM OF NOTE OF PROTEST]

City of ..... } *ss.*
State of ..... }

On this.....day of.....19....,
before me.....a Notary Public
duly commissioned and sworn, personally came.....
.....Master of the.....
called the.....of.....
of the Burthen of.....tons, or thereabouts, laden with
.....and saith that he sailed from.....
on the.....day of.....last, bound to
..... and .....
(State here date and nature of accident or disaster)
and arrived at this port of.....
the.....day of.....19...., but
fearing damage, enters his protest in due form of law.

.....
Master.

Before me,

.....
Notary Public.

[FORM FOR EXTENSION OF PROTEST]

UNITED STATES OF AMERICA

STATE OF
CITY OF } *ss.*

BY THIS PUBLIC INSTRUMENT OF DECLARATION AND PROTEST, *be it made known and manifest to all whom it may concern, that on the day of in the year one thousand nine hundred and before personally appeared master of the of of about tons net register, and noted with him, in due form of law, his protest for the uses and purposes hereinafter mentioned. And now on this day of in the year before me a notary public in and for the county of in the State of , duly commissioned and sworn, and practising in the City of and State aforesaid, comes the said master, and requires me to extend his said protest, and together with him come and appear all belonging to the aforesaid vessel, all of whom being by me duly sworn depose and say that the said vessel laden with , being in every respect seaworthy, and in all things fitted and provided for her intended voyage, sailed on the day of 19 , from bound to . That she arrived at on , the incidents of the voyage being fully set forth in the within narrative.*

(Here state fully the occurrences of the voyage.)

AND *deponents further say, that the said vessel was, at the commencement of the voyage, staunch and strong, and had her cargo well and sufficiently stowed, and her hatches properly closed and secured; and that during the said voyage they, together with the rest of the crew, used their utmost endeavors to preserve the said vessel and her cargo, tackle and apparel from damage or injury. And that any loss, damage or injury which has arisen or accrued, or that may arise or be sustained, in any way or manner whatever, is solely due to the accidents and difficulties herein set forth, and not to any negligence, want of skill, vigilance or exertion on the part of deponents, or any of the officers or men of the said vessel.*

(*Signed*)

Master, ...

Chief Officer .....

.....

.....

.....

WHEREFORE *the said master hath requested me to protest and at his request I do publicly Protest, against all persons whom it may concern, and against the accidents, casualties and circumstances already set forth in the foregoing declaration, for all manner of losses, costs, damages, charges, expenses and injuries whatsoever, which the said vessel and her cargo on board and the freight by her earned, or to be earned, or either of them or any part thereof, have already sustained, or may hereafter sustain, by reason or means of the foregoing premises.*

THUS DONE AND PROTESTED *in the City of , this day of in the year one thousand nine hundred and*

IN TESTIMONY WHEREOF, *I have hereunto set my hand and affixed my notarial seal.*

[SEAL]

(*Signed*)

.....

Extension of Protest.

An extension of protest should be made within a reasonable time after the note of protest. (See form on reverse of this page.)

The extension of the protest is a public declaration by the master, officers and crew, or some of them, setting forth the occurrences of the voyage, any bad weather or accident encountered, and describing the action that was taken under the circumstances of emergency. Being of great importance in connection with the relief of the vessel from liability for damage to cargo or other claims, and also in connection with claims which may arise under insurances and in the adjustment of averages, the extension of protest should be carefully prepared.

It is not necessary that the extension of protest be confined to the language of the logbook. The occurrences as mentioned in the logbook may be amplified in the extension of the protest. The protest is usually sworn to by the captain, an officer, a petty officer and two seamen. In case of damage to machinery, one of the engineers should also sign it.

Preferably, the extension of protest should be drawn by some person having a knowledge of the details that should be included.

PRACTICAL SUGGESTIONS IN CONNECTION WITH GENERAL AND PARTICULAR AVERAGE

Particular Average.

Particular Average is a partial loss or damage to ship, cargo or freight, resulting directly from heavy weather, fire, stranding, collision or other perils of the voyage purely accidental in character.

Particular Average losses are borne by that interest (ship, freight or cargo) which has suffered damage. If the interest damaged is insured, a claim will lie against the insurers, if coming within the terms and conditions of the insurance.

General Average.

General Average is a loss occasioned by a voluntary sacrifice made, or an expense incurred, for the purpose of averting a threatening danger to the common safety.

General Average losses are contributed to by all the interests at risk benefited by the general average act. Such contribution is required of every interest whether or not it be insured.

The following common forms of Particular and General Average losses, illustrate the distinction between the two classes of Average:

PARTICULAR AVERAGE	GENERAL AVERAGE (American Law)
Loss or damage to vessel and/or cargo caused directly by heavy weather or other perils of the sea.	Loss or damage to cargo and/or ship's materials jettisoned for the common safety, including damage to cargo and/or ship's materials by water going through the hatches while opened for the purpose of jettison.
Loss of or damage to masts, spars, sails or other gear carried away in heavy weather, including damage done by such falling spars or by water which reaches	Loss of or damage to masts, spars, sails or other gear cut away for the common safety, including any damage done by falling spars resulting from such

the cargo in consequence of such damage.

cutting away or by water reaching the cargo in consequence of such damage.

Spars and/or rigging previously carried away by heavy weather and in a state of wreck, if subsequently cut away for the safety of the ship and cargo, are allowed in General Average at their damaged value.

Loss or damage to the ship and/or cargo caused directly by fire or heat generated by such fire.

Loss or damage to ship and/or cargo (excluding any packages touched by fire) caused by water used to extinguish the fire, or other sacrifices made for such purpose, including damage by beaching or scuttling the ship.

Loss or damage to ship and/or cargo caused by striking the bottom or rocks or other impediment to navigation, or through leaks arising therefrom.

Loss of or damage to ship and/or cargo by the *voluntary* stranding of the vessel for the common safety, including any damage subsequently sustained by pounding or other perils of the sea while ashore.

Loss of or damage to ship and/or cargo resulting from accidental or unintentional stranding of the vessel, including any damage subsequently sustained by pounding or other perils of the sea whilst ashore.

Loss or damage caused by or arising out of the effort to float a stranded vessel (whether stranding voluntary or accidental), such as loss of anchors or damage to hawsers or other material used for this purpose, or damage to a steamer's engines or boilers sustained through working same in the effort to float her.

Damage to or loss of sails and spars, sustained in the

effort to force a ship off the ground or to drive her higher up for the common safety.

Loss of or damage to cargo necessarily caused in a forced discharge in the effort to float the vessel.

Loss or damage sustained by collision with another ship or vessel.

Damage to cargo necessarily caused in a forced discharge at a port of distress to enable a ship to be repaired.

Loss or damage sustained through the vessel sinking.

Cargo, ship's materials and stores necessarily burnt for fuel (provided ship was originally sufficiently fueled) for the common safety.

General Average Expenditures.

Among the more common forms of General Average expenditure are:

Expenses of floating a stranded ship or of raising a sunken ship, whether incurred as salvage or otherwise.

Expenses of relieving a vessel in any situation of danger which threatens the destruction of the entire adventure, whether incurred as salvage or otherwise.

Expenses of entering a port of refuge when necessary for the common safety. Under this heading are included:

Inward and outward pilotages;

Inward and outward towages;

Port charges;

Expense of discharging cargo for the general benefit;

Expense of reloading such cargo;

Expense of storing such cargo;

Wages and maintenance of ship's company from time of bearing away for port of refuge until the voyage is again resumed;

Coal and engine stores in bearing away for a port of refuge until the voyage is resumed; or in working the engines of a stranded ship in the effort to float her.

General Average Duty of Shipowner.

The shipowner (or in his absence, the master) is, in the event of a General Average, required to take such steps as are necessary to secure to those injured by the General Average act, contribution from the remaining interests. Failure to take such steps will render the vessel and her owners liable for any losses resulting from such neglect.

(See lien for General Average, page 42.)

Security.

Such security is usually accomplished by taking the signature of the consignees of cargo to an Average Bond, together with a cash deposit, or the guarantee of a responsible person or corporation for the payment of the average contribution. This security should be obtained before the cargo is delivered.

Average Bond.

The signature of consignee to the Average Bond should always be taken. The General Average deposit or a guarantee is taken as security additional to that of the Average Bond and not as a substitute therefor. A copartnership should sign as a firm by a member thereof, and a corporation by an authorized officer. The signature should appear in the column indicated (on the form of Average Bond shown on opposite page) by the heading, "Signatures." In the adjoining column headed "No. of Packages and Description," should be entered particulars of the shipment as shown by the bill of lading. In the next column, marked "Amount of Invoice," should be shown the invoice value of the shipment. This latter is quite important and should not be omitted.

General Average Deposit.

The deposit is intended as security for the payment of the general average contribution finally ascertained to be due from the shipment on account of which it is made. It should be ample for that purpose.

[FORM OF AVERAGE BOND]

AVERAGE AGREEMENT

WHEREAS, THE S/S whereof was Master, having on board a cargo of merchandise, sailed from the port of during the month of , bound for and in due prosecution of her said voyage, it is alleged, that

And whereas by reason of the occurrences of the voyage, certain losses and expenses have been incurred, and other losses and expenses hereafter may be incurred, which may constitute a general average, to be apportioned on the said Vessel, her earnings as Freight and her Cargo, and other losses and expenses have been and may be incurred, which apply to and may be due from specific interests; Now, in consideration of the premises, we, the subscribers, owners, shippers, or consignees (or agents or attorneys of certain owners, shippers or consignees) of said Vessel, her earnings as Freight, or her Cargo, do hereby for ourselves personally, and our principals and executors and administrators, severally and respectively, but not jointly, or one for the other, covenant and agree to and with and/or , as Trustees for all concerned, that all losses and expenses aforesaid, which shall be made to appear to be due from us or our principals, or from any firm of which we are or have been copartners, either as owners, shippers or consignees, shall be paid by us respectively, according to the part or share in the said Vessel, her earnings as Freight, or her Cargo, which shall belong to us or shall belong to or be consigned to any person or persons for whom we are agents, or attorneys, or with whom we are or have been partners or in which we are or have been in any manner concerned, provided that such losses and expenses shall be stated and apportioned by , Average Adjusters, in accordance with the *established usages and laws* in similar cases. And we do further bind ourselves to furnish promptly, on request of said Adjusters, all such information and documents as they may require from us to make said adjustment. This agreement may be executed in several parts of like tenor and date, the whole of which is to constitute but one agreement, with the same effect as if each of said parts were severally signed by us.

Should the value of the services rendered in whole or in part to the cargo be determined by amicable settlement or by arbitration WE HEREBY AGREE to pay, each our rateable proportion of any sum thus fixed or determined upon; and in the event of an action or suit being brought to recover for such services, WE HEREBY SEVERALLY AGREE to give bond therefor in the same manner as if the salvors had required such bond direct from us before surrendering the cargo; and WE FURTHER AGREE to pay and fully satisfy any final decree that may be rendered.

IN WITNESS WHEREOF, we have to these presents set our hands, in the City of this day of in the year of our Lord one thousand nine hundred

SIGNATURES	No. of Pkgs. and Description	Amt. of Invoice	WHERE INSURED

The amount of the deposit which should be taken may be ascertained in the following manner:

1. Approximate the total amount of general average expenses and/or sacrifices, exercising care that all possible items of this nature are included and making due allowance for any possible future expenses in connection with the general average.

2. Approximate the values at destination *in the condition in which they arrive,* of—

(a) **the vessel,** deducting therefrom the cost of any repairs made subsequent to the general average act and prior to the arrival;

(b) **the cargo,** deducting therefrom freight (if payable upon delivery), duty (if any) and any other charges incurred subsequent to the general average act;

(c) **the freight** (if payable upon delivery), deducting therefrom the estimated expenses incurred subsequent to the general average act in earning same.

3. Ascertain the percentage which the approximate general average (under 1.) bears to the approximate aggregate values (under 2.), and increase such percentage sufficiently to cover possible errors and omissions.

The General Average deposits taken should be for such percentage applied to the value of each consignment.

A deposit receipt in the form hereinafter shown should be given for each deposit taken and consignees notified that surrender of the deposit receipt will be required, when refund of any excess deposit is made.

Although it is the common practice (unless the shipment is insured with insurance companies represented where the adjustment is made) to take a cash deposit, this practice cannot be legally enforced under the laws of the United States, but consignees may be required to furnish a bond with satisfactory sureties.

FORM OF GENERAL AVERAGE DEPOSIT RECEIPT

No..... .....19....

Received from.....

..... Dollars

as a deposit to secure the payment of General Average and/or other charges on the following merchandise, per .....
(Vessel's name)

from ..... to ..... viz.: .....
(Port of shipment) (Port of destination)

.....
(Number of packages and description of merchandise)

Upon completion of the adjustment, the charges falling upon the above merchandise shall be paid from said deposit, if sufficient, and the excess, if any, SHALL BE RETURNED ON ENDORSEMENT AND SURRENDER OF THIS RECEIPT; or if a balance is due, it shall be paid according to the terms of the average bond.

Invoice value, $.....at.....per cent. $.....

(Application for refund of deposit should be made to)

.....
(Name of Trustee or Average Adjuster)

.....
(Signature of those receiving deposit)
Trustees.

Guarantee.

Where cargo is insured with an insurance company (represented at place of adjustment) it is customary for the written guarantee of such Company for the payment of general average and/or special charges on cargo insured by them to be accepted in lieu of a general average deposit or other security, excepting only the average bond, which must always be signed by the consignee.

In no case, however, should the mere statement of

either consignees or insurance company that the goods are insured be accepted.

A written guarantee (without limitations in respect to amount insured) should always be had, failing which other satisfactory security is required.

Guarantees accepted may be taken on the following form:

FORM OF GUARANTEE

M.....

In consideration of the delivery from the S.S.....
.....of the following goods, viz.:—

Consigned to.....without the requirements of a deposit, we hereby guarantee the payment of all General Average, Salvage and/or Special Charges for which said goods are liable.

.....
.....19....

Contributory Values of Cargo.

The cargo contributes to the general average on the basis of the gross wholesale selling value at destination in condition as arrived, *i. e.,* if sound, in its sound condition, or if damaged, in its damaged condition, *less* cash or trade discounts, if any, and all of the expenses incurred subsequent to the general average act to obtain delivery, viz.: freight (prepaid freight should not be deducted), duty (if any paid), cartage and other landing charges, when actually incurred.

[FORM OF PRO FORMA ACCOUNT SALES]

STATEMENT OF VALUE *of Goods landed from the S/S*.....

GROSS WHOLESALE SELLING VALUE IN_____IN THE CONDITION LANDED OF THE FOLLOWING GOODS:

MARKS	NOS.	PKGS. AND MDSE.	QUANTITY	VALUE AS ABOVE	VALUE	
					$	
Less.....per cent. Discount for Cash (if any)					$	
CHARGES (*To be deducted*)						
FREIGHT, *as per Bill Lading (if not prepaid)*....$						
NET DUTY, ...						
LANDING CHARGES, *Cartage,*						
Labor, ...						
Brokerage, (if paid)						
If any other charges necessary to obtain possession of the goods have been paid, state what they are.						
These goods are insured for $.....in						
.....*Company.*						
The Invoice value of above is.....						
			Net Cash Value,		$	

Dated *191*

We certify that this account is made up in accordance with the printed direction in this form.

SIGNATURE:.....

N.B.—Property jettisoned is to be made good in General Average on same basis.

The gross wholesale selling value *does not mean* the cost of landing the goods at destination, *but is* the gross wholesale value in the sense of what the goods are worth in the open market and could be purchased for spot delivery on the date of arrival. When, however, the goods are of such a character that they are not regularly bought and sold in the open market, and there is therefore no fixed standard of market value, such gross wholesale selling value is in practice taken to be the landed cost of goods at destination plus a reasonable profit. Also, in some trades to ports where no wholesale market exists, or where it is impracticable to ascertain the wholesale market values, it is the practice to use as the contributory value the market values at the point of shipment (plus freight if prepaid) and a reasonable profit.

Neither the invoice value nor the insured value can be accepted as the contributory value.

The form generally used for securing the values of cargo is shown on preceding page.

GENERAL PRINCIPLES COVERING CLAIMS UNDER INSURANCE

Claims against Insurers, or in General Average.

The delays in the adjustment and collection of their losses from insurers regarding which shipowners and merchants often complain are not infrequently caused by the failure of the shipowner or the merchant to observe the requirement of prompt notice of loss, or by the delay in furnishing to their insurance brokers and adjusters the proper and complete proofs of loss and interest which are necessary to establish the claim.

Marine insurance does not necessarily cover any and all damages sustained. On the contrary, it protects only against such perils or risks, and subject to such restrictions or limitations as to liability of the insurer, as are mentioned in the policy which constitutes the insurance contract. There are not only many forms of insurance policies, but the printed conditions of policies are often either extended or restricted in their coverage by special clauses attached. To secure a determination of liability by insurers, and if so, the extent thereof, proofs as to the cause, nature and extent of the damage are required by them before payment is made. Usually such proofs are in the nature of formal documents, for lists of which see pages 55–56.

In case of loss or damage, it is always preferable for an assured to consult with and be guided by his insurance broker or adjuster, but when this is not possible the following suggestions in respect to proofs of loss, the several agencies to be employed, and the duties and powers of such agents, may prove helpful.

Notice of Loss to Insurer.

It is, in all cases of damage, desirable, if practicable, to notify insurers or their agents of the loss, promptly and prior to survey. This will usually facilitate the determination and collection of the loss. Many policies (insuring cargo or vessel) require such notice to be given within a specified time, with privilege to the insurers to

appoint their own surveyor to examine the damage. The policies should be carefully examined and their conditions strictly observed.

Special Conditions Hull Policies. Competitive Tenders for Repairs.

Some hull policies provide that, if requested by the insurers, competitive tenders shall be taken by the owner for the making of repairs for which the insurers may be liable. A penalty—usually fifteen per cent. (15%) deduction from the ascertained claim—is provided for failure to observe this condition.

Lloyd's Agents —Underwriters' Agents.

In most of the large and important seaports are agents appointed by the insurance companies to act for them where losses occur in which they are interested.

Lloyd's Agents (agents for Lloyd's Underwriters, London) are probably the best known of this class of agents. The English Companies will usually, but not always, accept the reports of Lloyd's agent, although such agent may not have been directly appointed by them.

American Companies generally employ the agent of the Board of Marine Underwriters of which the company is a member.

Insurance Companies of other countries usually have their own appointed agents.

The policies often show the name of the agent to whom notice of loss should be given.

These agents do not hold general powers to act for all insurers. Their authority to act for underwriters or companies is limited to those from whom they hold regular appointment or from whom they have received special authority. Such agents assuming to act for all the insurers should be required to show their authorization.

Duties and Powers.

The duties and powers of such agents are:

In case of accident or shipwreck to give such advice and assistance to the master as he may require;

In connection with damage to cargo, to act, upon request, for the insurers in the determination of the nature, cause and extent of the damage, or to appoint

a qualified expert or surveyor to do so, and to certify to his report;

In connection with damage to vessel, to appoint, upon request, a qualified ship surveyor to act for underwriters in the determination of the damage, and to certify to such report of survey;

To certify, upon request, as to expenditures made for repairs or other expenses incurred in connection with loss, and as to the reasonableness of the same;

To advise, in all cases, the underwriters of the facts in connection with any loss in which such underwriters are interested, and by such advice protect them against improper and excessive claims.

Upon the assumption of any powers beyond those above described, the authority for the same should be required. The powers held by these agents are usually prescribed in the agency appointment.

Limits of Power.

These agents are not empowered, unless specially authorized to do so, to accept abandonment, or to bind underwriters to a compromise settlement. They cannot make contracts or agreements of any character for the vessel's or owner's account, nor can they force the owners (of vessel or cargo), or the master, to make any contracts. (See special conditions requiring competitive tenders for repairs, page 48.) Masters and owners are cautioned that these agents can only give advice; they cannot instruct, and while their approval will generally facilitate the settlement of the claims by the underwriters, the final decision and responsibility for what is done rest upon the owner if present, or in his absence, upon the master.

It is always preferable that notice of loss and any necessary negotiations with underwriters be conducted by owners through their insurance broker or average adjuster, as by such direct conference difficulties and misunderstandings can often be avoided.

When, however, this is not practicable, the accredited agent for the interested underwriters at the port where the vessel may be, should be notified prior to survey and asked to appoint a surveyor for underwriters.

If there be no underwriters' agent or surveyor available at the port at which the vessel is in distress or at a neighboring port, it is customary to request the consul to appoint surveyors. This may be done from among the masters of ships then in port.

The master and/or owner may, if they so desire, appoint a surveyor to act for them. Such owner's surveyor would be additional to the surveyor for underwriters.

Surveyors—Duties and Powers.

The duties of the surveyor and the limit of his powers are to examine the damage and report his opinion as to the cause, nature and extent of same, together with his recommendations, viz.:

In case of cargo, as to its treatment and/or disposition; or,

In case of ship damage, as to what repairs are necessary to make good the damage, and, after such repairs are completed, to certify to such fact, and as to the seaworthiness of the vessel.

It is the duty of the surveyor to watch the repairs as they progress and to see that they are properly made.

Where repairs are made otherwise than under a lump sum contract, the surveyor should, before payment of the repair bills, examine and either approve them as a proper statement of materials and labor used and as a reasonable charge for the work done, or, if such bills are not satisfactory, he should state his objections to them.

A surveyor has no authority to order by whom, or upon what basis (lump sum contract or time and material) the repairs are to be made, nor to determine whether competitive tenders shall be taken, nor to instruct the owner or master on these matters. A surveyor may properly advise an owner or master on these points, but he has no authority to do more.

Should the surveyor not properly protect the interest of all without bias, either party has the right to call in independent surveyors. The purpose of the survey is to ascertain the damage, and neither owners nor underwriters are foreclosed from showing the facts by any erroneous findings of a surveyor. Such errors, however, should be corrected at the time while ascertainment of the facts is practicable.

Report of Survey on Ship.

Surveys on ship damage should consist of a complete, but concise, statement of *all* the damages which the ship has sustained, the cause thereof, and the recommendation of the surveyor as to the repairs necessary to remedy such damage. Surveyors are not always as careful as they should be in mentioning every minor damage, believing it to be unnecessary. In this they are mistaken. Such omissions always cause delay and may prevent the owner from recovering the omitted item to which he may be entitled.

Before survey, a complete and minute examination of the vessel by the master and officers, and a written list of all the damages found, furnished the surveyor, will assist the latter, and will often prevent a damage sustained from being overlooked.

The written reports from the surveyors, when received, should be carefully examined and checked with the ship's list of damages and the surveyors required to correct immediately any inaccuracies or omissions found.

A written list of ship's equipment or stores entirely lost should be furnished to the surveyors, and the survey report should mention such loss or losses as reported.

Repairs made necessary through wear and tear or through decay should be clearly so stated in the reports of survey.

Report of Survey on Cargo.

Survey reports on cargo should show the *cause, nature* and *extent of the damage.* The report should specify:

1. The nature of the damage and the surveyors' opinion as to the cause of same.

2. The extent of the damage, if this can be determined. If the surveyors and consignees are unable to agree upon the depreciation, the owner may sell the damaged goods at public auction.* When damaged goods are so sold, a certified copy of the auction account sales should be attached to the survey report.

3. The gross sound market value of the goods at the port of destination, and whether the sale was for cash or on time; if the latter, the term of credit and the discount for cash.

If the merchandise is of a character customarily sold at the port on the basis of "duty paid," the gross market value should be shown on a "duty paid" basis; but if it is of a character ordinarily sold "In Bond," the values given should be the "In Bond" values.

4. Any extra expenses incurred in handling and disposing of the damaged goods, including expenses of handling for survey and the survey fees. Any credits on account of rebate of duty should likewise be shown.

Damage by Water poured on in the Effort to extinguish Fire.

Damage done by water (the term "water" in this connection includes steam, chemicals or any other material voluntarily used in an effort to extinguish fire on shipboard) is a general average damage, with the exception that for any package which has actually been on fire, the entire damage is treated as particular average. Such exception does not, however, apply to packages damaged by "smoke and water," on which the damage by smoke is particular average, while the damage by water is general average.

* Where it is impossible for the parties at interest to agree upon the extent of the damage, it is the general rule to have this determined by a sale of the damaged goods at public auction. This general rule, however, cannot properly be applied where the goods damaged are of such a character as not to have a marketable value when sound. Where goods are intended for a special purpose and have no appreciable value except for that purpose, a sale by public auction becomes a farce and is entirely worthless as a guide in determining the actual damage. In such cases some other and more reasonable course must be followed, the cardinal principle being to handle the damaged goods as would have been done had there been no insurance.

In all cases of fire damage, it is necessary for the survey reports and account sales of damaged cargo to show an accurate segregation into the following causes of damage:

First: Any package touched by "fire and water" should be designated as "fire and water damaged."

Second: Any package damaged by "smoke" alone should be designated "smoke damaged."

Third: Any package damaged by "water" alone should be designated "water damaged."

Fourth: Any package damaged by "smoke and water" should be designated as "smoke and water damaged," and in such class of damage, the damage by smoke and the damage by water should be separately shown.

All items of expense and all credits for rebates of duty or similar items as mentioned above, should also be shown properly segregated as between the several classes of damage.

Damage or Sacrifice of Ship's Material.

The adjustment of averages and collection of loss are at times much delayed by lack of sufficient information as to the exact cause of loss of, or damage to, hawsers, sails and/or other ship's materials or equipment. Where such losses or damages have occurred, the master and officers should furnish the surveyors with a written statement containing full information as to the cause of the loss of all such articles, which statement should be attached by the surveyors to their report.

Ropes, sails, or other gear or equipment never before used, taken directly from the store-house of the ship, are allowed without deduction of new for old. Special mention should be made of any such articles used and lost or damaged.

Bills for Repairs to Ship.

The practice exists with some repairers to render their bills for repairs on the basis of time and material, or of cost and agreed profit, in such form as to make it impos-

sible for any one except themselves, or timekeepers who have kept a careful account of the work, to segregate correctly the cost of repairing the separate items of damage. As in many cases a segregation of the repair bill is essential for the purpose of correctly stating the claim against underwriters, or the general average, such practice of rendering bills creates much trouble and labor to all concerned and generally causes considerable delay.

The adjustment of claims and collection of losses would be greatly facilitated if the repair bills were made to show under each item of repair the materials and labor used for such item.

Before bills for repairs are paid they should be examined and approved by the surveyors as being reasonable for the work done. This is a part of the surveyor's duty.

Where old material is replaced by new a proper credit for the old material must be secured. This specially applies to old ropes, hawsers, sails, awnings, copper sheathing, old shafts, propellers, etc., renewed.

Upon the shipowner rest the obligation and responsibility of seeing that the repairs are made, so far as conditions permit, at a reasonable cost. He must know that any bills paid are a correct statement of the labor employed and material used. In the absence of the owner or his special representative, the master becomes the agent of the owner for this purpose.

Timekeeper.

Except where the repairs are made under a lump sum contract, a careful and accurate account should be kept of the material used and labor employed. Either an officer of the vessel or a timekeeper specially employed should do this. A comparison made each day with the records kept by the repairers and the correction at that time of any inaccuracies will assist in avoiding differences which it might later be found difficult or impossible to reconcile.

The repair bills should be checked with the timekeeper's account before payment.

Merchants and shipowners will greatly facilitate the statement of claims by the average adjusters and the collection of their losses from insurers by an observance of the foregoing suggestions and by promptly furnishing the complete proofs of loss required, as shown in the following lists:

USUAL PROOFS OF LOSS

Damage to Ship.

1. The Extended Protest or a Notarial certified copy of same. (See Extension of Protest, page 36.)

2. The Reports of the Surveyors who examined the damage. (See Surveyor, page 50, also Survey on Ship, page 51.)

3. The original bills showing the cost of repairs. (See Repairs to Ship, page 53, and Timekeepers, page 54.)

Where competitive tenders were obtained, verbatim copies of the specifications of repairs and all the tenders received are required.

4. All original bills showing other expenses, if any, incidental to repairs.

5. Any further documents or memoranda containing any additional information regarding claim. (See Damage or Sacrifice of Ship's Material, page 53.)

6. The Log Books covering the entire voyage on which the loss occurred. Where machinery damage is involved both Deck and Engine Room Logs are required.

7. The Policies of Insurance.

Damage to Cargo.

1. Extended Protest or a Notarial certified copy of same.

2. The Report of the Surveyors who examined the damaged goods. (See Surveyors on Cargo, page 51.)

3. The Original Invoices under which the goods were shipped or certified copies of same.

4. The Bills of Lading under which the goods were shipped.

5. The original Auction Sales of any cargo sold at Auction.

6. The Policies of Insurance.

For Adjustments of General Average.

1. The original bills covering all expenses incurred outside the ordinary expenses of the voyage.

2. Certificate of value of vessel.

3. The value of cargo in condition as delivered. (See Contributory Values of Cargo, pages 44, 46.)

4. Statement of amount of freight and advance charges collected after the disaster; also,

Statement of all expenses incurred after the disaster until the cargo is finally discharged at destination.

List of crew's wages and dates they left the ship.

The date of final discharge of cargo at destination.

5. Average Bonds and other security taken. (See Average Bond, page 41.) (See General Average Deposit, page 43.) (See Guarantees, page 44.)

6. The Charter Party and Bills of Lading, or other contract of affreightment.

Port of Refuge Cases.

If the vessel bore away for, put into, or was detained at a port of distress, the following additional information is required:

A detailed statement of wages and provisions of crew during deviation and detention.

Where any of the crew deserted or were discharged, particulars of the date of such desertion or discharge. Also the date upon which the men engaged to replace them joined the ship, and wages of new men.

A sworn statement from the chief engineer showing the coal and engine stores consumed from the date of bearing away until the voyage was resumed, segregated as between what was used for steaming purposes, for discharging and loading cargo, and for other purposes.

Stranding Cases.

Where the vessel has been aground and the engines have been used in efforts to assist in floating her, a similar sworn statement from the chief engineer of coal and engine stores consumed, and for what purposes, should also be furnished.

"FIRST AID" TO STRANDED VESSELS

(Through the courtesy and with the assistance of Capt. John Metcalfe (deceased), formerly surveyor for Lloyd's Register, San Francisco; Capt. A. F. Pillsbury, formerly surveyor of the San Francisco Board of Marine Underwriters at San Francisco; Capt. E. C. Genereaux, formerly surveyor of the San Francisco Board of Marine Underwriters at Seattle, and Capt. William Logan, Salvage Officer of the London Salvage Association at Victoria, B. C., all of whom have had large experience in salvage work, the following article has been made possible.)

The need of a better understanding by many shipmasters of the dangers to which a vessel aground is exposed and what ought to be done to safeguard her against such perils is evidenced by the absence of efficient and proper steps in many casualties of this character. It is not possible to anticipate and mention all of the dangers to which a vessel, ashore or aground, may be exposed. In this article mention is made only of those perils which exist in almost every case of stranding, and with a very brief outline of what is helpful in protecting the vessel against the dangers attending such a situation.

In the following explanation of the fundamental principles employed in the operation of floating a stranded vessel, no attempt is made to submit a treatise on salvage. On the contrary, the article is strictly one of "First Aid" suggestions. As has been said by Capt. Metcalfe, it is not practical to lay down any hard and fast rule that will fit all cases. "First Aid," however, if promptly and properly applied, is almost always helpful to prevent additional injury and, in some instances, may save a total loss. Where the stranding is not serious, it may result in getting the ship afloat before outside assistance can arrive.

It is very seldom that the services of an expert salvor are available to a vessel immediately following her stranding. It is in this interim before outside assistance can reach her, that the precautions hereinafter mentioned should be taken. They will usually prove helpful, in preventing increased damage, and in making the subsequent

task of getting the vessel afloat less difficult and hazardous.

Effect of Sea and Tides. Their Power for Harm.

The effect of the seas, swells and tides upon a vessel aground is always to force her higher on the strand. The rapidity with which she is moved naturally depends upon her position and the exposure to these elements. If stranded on an exposed coast, subject to the full sweep of the ocean, the movement is usually more rapid and more easily perceptible than if in sheltered waters; but if the vessel be aground in waters where the tide is a material factor, the same conditions, perhaps in a lesser degree, are present.

The vessel works higher aground or ashore because the weight and pressure of the incoming sea, swell or tide is always against her from the direction of deep water towards the land simultaneously with their lifting power upon her. When she is lifted partially afloat by an incoming sea or swell, or by the incoming tide, and being less hard upon the ground can move, the incoming sea, swell or tide, pressing against her from seaward towards the land, forces her higher ashore.

The extent of this danger does not seem to be generally realized by shipmasters. It is an actual peril present in almost every case of stranding. Not only is there danger that the vessel may sustain physical damage in such movement, but she may shift her position for the worse, or by being carried higher aground the difficulty and expense of floating may be greatly increased, with a decreased chance of ultimate success.

How Tide may be used for Good.

The seas, swells and tides, although a great menace to a stranded vessel, may, by intelligent use, be made the means by which to float her. Indeed, where the vessel aground is of any considerable size, it is only by using them that the successful floating can be accomplished. A large vessel hard and fast aground, cannot be hauled off the strand by main force. But when the incoming tide or sea lifts the vessel partly from the strand, the exertion

of a strong pull toward deeper water will often float her. Even though she cannot be moved, if she can be held in place and prevented from shifting her position for the worse, much good will be accomplished and the dangers already mentioned will be minimized.

WHAT TO DO

Assuming the physical condition of the vessel is such that if once afloat she would not be in danger of sinking, when it is found that she cannot be immediately floated off by the use of her engines (this is usually determinable within a very few moments after the grounding), steps should be quickly taken to hold her fast where she has stranded. This is to prevent her from being carried higher ashore or shifting her position for the worse until conditions are favorable to attempt to float her.

Strandings on Intermediate Flood-Tide Dangerous.

The stage of the tide at the time of stranding is an important factor. Notwithstanding that in some instances vessels which have stranded on an intermediate stage of the flood-tide have been safely floated on the same rising tide, a stranding at this stage of the tide possesses many elements of danger. In such cases, from the moment the vessel strikes the ground and before anything can be done to hold her in position, the tide and sea are acting upon her, forcing her higher up on the strand.

Another dangerous feature of stranding on a rising tide is in the over-confidence of those in command that the vessel will be easily floated with the rising tide by the use of her engines. Because of such over-confidence they may fail to take the precaution of running out the anchors, often with the result that instead of the vessel being floated as they expected, she is carried higher up on the strand and is left in a much worse position than when she originally went aground.

Over-confidence is also shown in other cases where efforts are made to get the vessel afloat by discharging

cargo or otherwise lightening her before the anchors are out and made fast to hold her. This is an extremely dangerous proceeding and almost invariably results in the vessel being carried higher aground as she is lightened.*

Fill the Ballast Tanks.

A stranded vessel can best be held in position by the use of her anchors, as suggested below. As quick action is almost always necessary and the handling of the heavy anchors usually takes considerable time, the ballast or other available tanks should when possible be at once filled with sea water.†

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* When a vessel is stranded in a position where she is in great and immediate danger of serious damage, as for instance if stranded on a rock or reef and in danger of holing herself, or, if lying in the breakers on a sandy beach, of pounding herself to pieces or breaking in two, extraordinary risks must be taken. To this end the immediate lightening of the vessel may be not only desirable but necessary either as the one immediate chance to get her afloat before she is irreparably damaged or to permit her to go further up on the beach out of the heavy surf as a measure of precaution for the prevention of probably serious damage until weather conditions are more favorable for salvage operations.

† William H. Logan, Special Agent, London Salvage Association, says:

"My experience has been that most men endeavor to lighten their ship with the hope of getting off easily and thus bring about a further delay. I think it may be taken for granted that the good sound basis of all salvage work is to keep the weight in the vessel and get her well secured before proceeding to float her. Departure from this rule has almost invariably led to further trouble."

Captain John Metcalfe, Surveyor to Lloyd's Register at San Francisco, who had been in charge of much salvage work, said before his death:

"The many and varying conditions that exist in the case of vessels stranding, the conditions of wind and sea, the nature of the shore, whether rock or sandy beach, rise and fall of tide, make it somewhat difficult to make a statement as to the first aids except in a general way.

"Do not remove any weight from ship before anchors are out to hold her.

"If a loaded steamer with ballast and peak tanks empty, fill them until anchors are out, then when strain is on anchor, pump out tanks as soon as possible.

"Get spare bower anchor and stream anchor with best wire or manila rope out as far seaward as possible, and get a heavy strain on same by heaviest tackles with material at hand.

"If a sailing vessel gets on shore she is generally helpless, but every effort should be made to keep her from getting broadside to the beach.

"In a steamer with the aid of steam, these matters are attended to more quickly, and if she can be kept from getting broadside to beach, a judicious jettisoning of part cargo (after she is held fast by her anchors to prevent going further ashore) may enable the crew to get vessel afloat if done promptly.

"Steamers should close all shaft alleys and other watertight doors."

This additional weight will serve to hold the vessel harder on the ground and thereby assist in preventing her from working higher up on the strand; will lessen the risk of damage through pounding, and can be quickly pumped overboard after the anchors are out and the conditions are right for the attempt to get her afloat. In one rather desperate case where the vessel was pounding heavily and in danger of breaking up, it was found necessary to take the drastic steps of flooding all of the cargo holds as the only means of saving anything. Such cases are fortunately rare but, at times, extreme situations require desperate measures.

Get Out the Anchors.

The anchors should be run out to hold the vessel in her position without a moment's unnecessary delay. It should be done even if it may appear certain the vessel will come

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E. C. Genereaux, former Salvage Agent for the Board of Marine Underwriters of San Francisco, located in Seattle, Washington, says:

"When a vessel strands on a sand beach, the most necessary precaution to take against her driving up or going broadside, is to, if possible, keep her stern to the sea by moorings at hand, and if necessary, by partially flooding. A vessel with her stern to sea invariably is released quicker and with less damage.

"In the event of stranding on the rocks and where vessel is in danger of pounding heavily, steady her by filling tanks, or one or more holds to prevent her from pounding."

A. F. Pillsbury, former Surveyor and Salvage Agent for the Board of Marine Underwriters of San Francisco, says:

"The two important things when a vessel strands on the outside coast are to prevent her, if possible, 1st, from swinging around broadside to the sea; 2nd, from going further up on the beach.

"If the vessel has double bottoms which are part empty, those in the end nearest the sea should be filled and weight shifted to that end, to keep the vessel's stern or bow to the sea, whichever may seem the most desirable, and thus try and prevent her from swinging broadside to the beach.

"At the same time, or as soon as possible, mooring should be gotten out. If it is not possible to run heavy anchors out with a boat, or boats rigged catamaran fashion, an anchor may be let go from the bow or stern, with several shots of chain, which in case the vessel drives further up on the beach, will then serve to hold one end out of the sea.

"Moorings in the form of anchors and chains with wire or manila rope and set up with tackles are far more effective when a vessel is firmly aground than steamers simply pulling.

"If a vessel is on rocks, and likely to fill when released, it would be folly to pull her off until sufficient pumps have been installed to take care of the leaks."

off on the high tide. The first large flood-tide after the stranding offers the one best opportunity to get the vessel off. Every possible precaution should be taken and no safeguard should be omitted which might assist in getting the vessel afloat on that tide. If it is not taken advantage of, it may mean greatly increased damage or even the total loss of the vessel.

Where the vessel is stranded on an exposed coast, the heaviest available anchors (bower anchors) should be used, but if because of their size and weight any delay is likely to result in getting them out, the kedge anchors should be run out as a temporary measure, to prevent the vessel from swinging broadside to the sea until the bower anchors can be got out to replace them.

Where to Place the Anchors.

The anchors used should be run out as far as possible into deep water in the direction in which it is intended to bring the vessel off the strand. If the vessel is stranded end on, they should be placed so as to prevent her from going broadside on the beach. They should be made fast (with suitable gear) to that end of the vessel intended to be moved out first, which in most cases (as vessels generally strand bow on) would be the stern.* If the vessel is lying nearly broadside to the beach and two anchors are run out, it is sometimes more effective to lay one anchor not more than four points seaward of the end to be hauled out.

What to Do After Anchors Out.

As soon as the bower anchors have been run out into the desired positions and made fast (if the vessel is in an exposed position all available bower anchors should be put out), a sufficient strain should be put upon them with the heaviest tackles available to keep the cables taut and hold the vessel in place until the tide is right to float her.

When Not to Try to Float Vessel.

The mistake should not be made of trying to heave the vessel off the strand by main force. Such attempts do no good and may result in breaking or straining the cables and tackles, thereby losing the anchors and leaving the

* See Salvage Officers' Report on *Pleiades,* Conclusion 3rd, p. 87.

ship worse off than she was before. Instances have occurred where the vessel has become a total loss because of such a mistake.

When to Try to Float Vessel.

When the vessel shows movement or signs of lifting or when conditions are especially favorable, as upon the near approach of the big flood-tide, the attempt should be made to float her by pumping out ballast tanks, by jettisoning cargo if necessary, by putting a heavy strain on the anchors and working the engines full speed astern or ahead as may be required. The master should remember, however, to let the tide or the sea do the heavy part of the work, with some help from the anchors and some from the engines if available, but the strength of engines and anchors should be saved and their usefulness reserved for the moment when they will be most effective. The main use for the anchors is to hold the vessel in place until she is ready to float; of the engines, to get her out of a position of danger after she is beginning to float. If the hawsers are broken or strained, or the engines strained or disabled before that time, the chances of success are being wasted.

Difficulty Handling Anchors. Some Means Used.

If difficulty is experienced in handling the large (bower) anchors, it should be remembered that the fate of the vessel may depend upon the success in getting these anchors out and in the proper positions. All possible ingenuity and seamanship should be exerted to its accomplishment.

In some instances, where outside assistance has not been available, the bower anchors have been run out by the use of the ship's boats rigged catamaran fashion and in other cases the anchors have been floated out by means of rafts built from materials at hand.

In other instances where steamboats (large or small) are available, the bower anchors have been dragged out by these steamers to the desired location by means of a heavy line made fast to the crown of the anchor.

The above suggestions cover what may properly be

termed "first aid to a stranded vessel." If promptly and effectively executed, they will in some instances result in the vessel being floated without any outside assistance.

In serious cases where the services of experienced salvors are ultimately required, these "first aid" suggestions, if promptly carried out when the vessel first strands, will greatly improve the chances of her ultimate salvage.

A word of caution is necessary as to some of the things to be avoided.

WHAT TO AVOID

Avoid Lightening until Vessel Held Fast by Anchors.

Do not, by the discharge of cargo or otherwise, lighten the vessel until she is held fast either with the anchors or by some other equally efficient means against the action of the sea or tide. To do so will usually result in her being carried higher up on the strand or beach as she is lightened.

(See page 60 regarding filling ballast tanks, etc.)

Use of Tugs or Steamers to Pull.

Do not employ tug boats or other steamers (except salvage steamers or steamers* specially equipped) to pull on the vessel nor allow them to do so in the hope that they may pull her off the strand.

Inefficiency of Steamers Pulling.

The effective pulling power of a vessel afloat is very small comparative to her Horse Power. In efficiency it is not to be compared with the pulling power to be secured by use of anchors or tackles.

The pull on a stranded vessel is most effective when

* A number of steamers are now in use specially equipped with heavy towing machines. Steamers so equipped are in a position to render valuable aid to a stranded vessel where without such equipment their service would be of little value. Where the service of such a vessel is quickly available it should be utilized. The best results can be obtained from the use of such steamers by employing the same methods as are followed by the salvage companies in using their steamers to pull on stranded ships, for particulars of which see p. 67. Such steamers should, however, observe the same precautions as are hereinbefore suggested. They should not attempt to pull the stranded vessel off by main force but should utilize their power to hold her in position and wait until all the conditions are most favorable for the successful floating before putting forth their full efficiency.

she is nearest afloat, viz., as she is lifted either in whole or in part by the incoming swell or surge. As the vessel pulling is subjected to the same surge or swell, and at practically the same time as is the stranded vessel, the power of the pulling vessel is, at that moment, to a very large extent being utilized to overcome the effect of the surge or swell upon herself, and consequently her pulling power upon the stranded vessel is at its minimum. By the time the pulling vessel recovers her full pulling power, the stranded vessel has lost the buoyancy or lift given by the swell or surge and the moment of favorable conditions for floating has passed.

Greater Efficiency of Anchors.

The pulling power secured through the use of the anchors is not affected by the swell or surge; it is continuous at all times. It is available with full efficiency at the time the ship is lifted sufficiently afloat to move, and if the strain on the anchors be greater than the pressure of the surge or swell against the vessel, she cannot move except in the direction of the anchors.

Objections to Use of Steamers for Pulling.

Steamers pulling on a stranded vessel are further unable to maintain a continuous, steady and efficient strain, which is essential to success, and by sudden, uneven jerks are more apt to part the lines (which may afterward be imperatively needed) than to be of any substantial service.

Another objection to the employment of or allowing tugboats or other steamers to pull on a stranded vessel is whilst such pulling is seldom of any real benefit, it is invariably costly. A towline once made fast, the towing vessel usually holds on until the stranded vessel is safely floated. Although the floating may be actually accomplished by methods in which the towing vessel has no important part, yet on the strength of her towline having been fast and by exaggerated claims as to the value of the service rendered, such vessels often secure salvage awards entirely disproportionate to the value of their services.

Services which other Vessels may Render.

It is not the intention of this article to urge or even suggest that the assistance of outside vessels should in all

cases be refused. On the contrary, when such vessels can render any assistance of value, and when the value of the service is commensurate with the cost, they should by all means be used. Such vessels may be of service in many ways other than in pulling, as, for instance, helping in getting out the large anchors, standing by in cases of emergency and in assisting the vessel should she require it after she has been once floated. They should be employed and used for such service only as they can usefully render.

Whenever it is possible, it is desirable that a reasonable price for the service of such vessels be agreed upon before they are used.

See Salvage Reports and Comments Str. *Manchuria*, p. 68.

See Salvage Reports and Comments Str. *Pleiades*, p. 83.

HOW THE BIG SALVAGE COMPANIES OPERATE

It is a prevalent but mistaken impression that the large and successful salvage companies maintain and use the powerful salvage steamers owned by them for the sole purpose of towing stranded vessels off the beach. Although these large salvage steamers are at times used in pulling upon a stranded vessel, such use is not the purpose for which they are maintained, nor is the successful work accomplished by these salvage companies to any appreciable extent due to the use of their steamers in pulling. The most effective and the important instruments used by the salvage companies in floating a stranded vessel are the anchors and cables, assisted by an intelligent use of the tides, swells and seas. The principle on which these salvage companies work is identical with that already outlined herein. The salvage steamers are maintained and used for various purposes, the most important of which is carrying the equipment and men to the wreck, assisting

in placing the anchors and in their subsequent recovery, assisting the stranded vessel when she is floated and at times towing her into port.

When a salvage company uses one of its steamers to pull upon a stranded vessel, it is not done by using her as a towing vessel, but in the following manner, by which the greatest effective pulling power is secured.

The salvage vessel is anchored out as far as possible in deep water in the direction that it is desired to pull upon the stranded ship. The anchor cables of the salvage steamer are then paid out and the vessel maneuvered with her engines as near as is desired to the stranded vessel until the towing hawsers have been passed and made fast between the two vessels. When this has been accomplished and the slack of anchor cables and towing hawser taken in, identically the same method in obtaining the pulling power is used as with the anchors, viz., a heavy and continuous strain is put upon the towing hawser by use of the heaviest tackles available. The salvage vessel will also assist by putting a heavy strain on her anchors. The engines of the salvage vessels are seldom used at all and when used are run very slowly. By the above means a continuous and considerably more efficient pull is secured and with much less danger of breaking the towing hawser than would be possible by the salvage steamer using her engines.

Reference has already been made to the fact that a vessel stranded is seldom benefited by having other vessels attempt to pull her off the ground. In cases where it is necessary or advisable to employ other vessels for this purpose, the greatest effective pulling power can be secured from them by pursuing the plan of operations used by the regular salvage companies.

The caution previously given not to attempt to pull the stranded vessel off the ground by main force, or at any time except when the conditions are favorable, should be constantly observed.

SALVAGE REPORT AND COMMENTS

Str. *Manchuria*

Carrying Passengers and Cargo of General Merchandise
Stranded August 20th, 1906, near Honolulu, H. I.

FACTS

On August 20th, 1906, at 4.10 A.M. stranded on the seaward side of the Island of Oahu about 20 miles from Honolulu. Engines had been going full speed astern 3 minutes before vessel struck. Engines kept going astern. Soundings around ship showed: 5½ fathoms over stern, 4 fathoms amidships, 3¼ fathoms over bow. Ship lying quiet.

At 8.12 A.M. Tug *Fearless* arrived. A line was passed her from the port quarter and with the assistance of ship's engines going full speed astern, an effort was made to pull the ship off, but without success.

At 11.55 A.M. a 9″ hawser was passed from port quarter to U. S. Revenue Cutter *Manning*. Both steamers kept a heavy strain on their hawsers in the effort to hold vessel in her position. Fresh N.E. wind and rough sea with heavy surf rolling in. Ship bumping heavily at times.

12.50 P.M. ran a hawser to steamer *Maui*.

At 3 P.M. a kedge anchor

COMMENTS

A careful study of the facts in this case as stated in the salvage report will show:

First: **The action of the sea and tides upon a stranded vessel in forcing her higher up on the strand.**

Soundings taken immediately after the stranding showed 3¼ fathoms over the bow, 4 fathoms amidships, 5½ fathoms over the stern.

Nine days later, when the salvage officer arrived, the steamer was lying considerably inshore from her original position embedded amongst the coral reefs to the extent of 8 feet forward, 10 feet aft and in from 16 to 18 feet of water.

The changed position of the steamer shows her continuous movement inshore and higher up on the strand, despite the efforts of the several steamers which were continuously pulling on her.

Further, it will be noted that on August 20th at 3 P.M. a kedge anchor with 9 inch manila hawser was run out from the port bow

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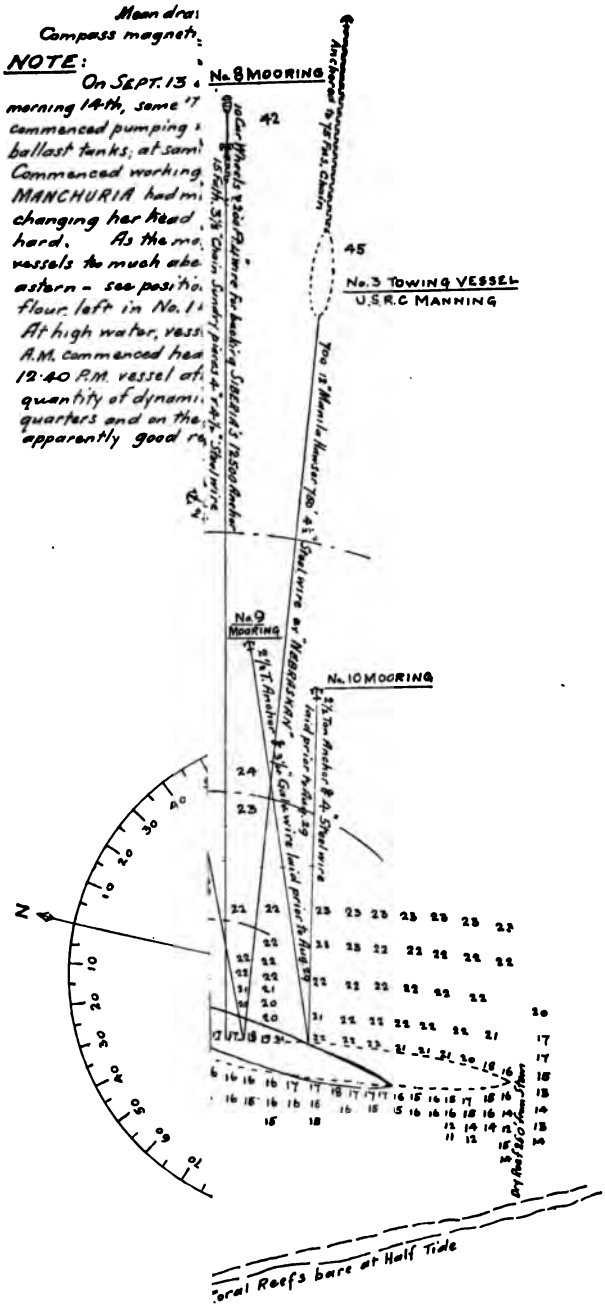

attached to a 9″ manila hawser from port bow was run out and hove taut.

At 3.25 P.M. another attempt was made to get the steamer afloat. The Tugs *Fearless, Manning* and *Maui* were towing hard, the ship's engines were worked full speed astern and a heavy strain was put on the kedge anchor. Line to the kedge anchor parted. Vessel remained fast, but striking heavily. All three vessels continued to tow and the engines were kept working full speed astern until 5.45 P.M., but without effect.

At 4.45 P.M. let go port anchor with 7 fathoms chain.

At 8.00 P.M. fresh N.E. wind, rough sea, vessel striking heavily, Tugs *Fearless* and *Manning* keeping strain on lines throughout this watch.

August 21. Tugs *Fearless* and *Manning* pulling on vessel to hold her in position. Weather same as previous watch. Ship striking.

At 6.00 A.M. *Fearless* left for Honolulu.

At 3.05 P.M. *Manning* started towing. During the day the vessel at times rolled and bumped heavily. The *Manning* kept strain on hawser.

and hove taut, and at 3.25 P.M., or 25 minutes after it had been made taut, the hawser parted.

That on August 23rd at 4.08 P.M. a stream anchor with 4 inch wire and 8 inch manila was run out from the port bow and hove taut, and at 7.40 P.M. this hawser parted.

That on August 24th at 2.30 P.M. a 7-ton anchor with a 7½ inch steel wire hawser attached was run out from the starboard bow, and on August 26th at 1 P.M. this hawser carried away.

The carrying away of these heavy hawsers attached to the anchors is another and very convincing proof of the continuous movement of the steamer inshore and higher up on the strand.

Second: **The results of a failure to immediately get out the heavy anchors to hold a vessel against the action of the sea and tides.**

It will be noticed that at the time the steamer struck her engines had been going astern three minutes. Soundings showed 33 feet at stern, 24 feet amidships, 19½ feet at bow, the steamer resting bow on. The engines were worked full speed astern in the effort to float her, indicating that

At 5.50 P.M. Cable Steamer *Restorer* (4000 H.P.) anchored off port quarter.

August 22. At 7.10 A.M. passed two wire hawsers to the *Restorer* and made same fast on port quarter.

At 12.30 P.M. a kedge anchor with a 12″ manila attached was run out and made fast to port quarter.

At 1.40 began shifting cargo from starboard to port side in the effort to hold vessel down on port bilge and prevent if possible her rolling.

At 4.30 P.M. an attempt was made to get the steamer afloat. The engines were worked full speed astern, a heavy strain was put on the stern anchor with ship's winches and the *Manning* and *Restorer* were towing hard.

At 4.35 *Manning* parted hawsers.

At 6.00 P.M. anchor line had been passed to *Manning* and made fast.

Throughout the day the vessel bumped heavily at times.

August 23rd. At 10.10 line to port quarter kedge anchor parted.

At 10.45 A.M. another line was run to *Restorer*.

At 11.50 *Manning* left for Honolulu, for coal.

At 12.00 noon another those on board did not think she was very hard ashore. She rested quiet from the time of stranding at 4.20 A.M. until about noon. The tug *Fearless* (a powerful towing vessel) arrived at 8 A.M., and with her assistance and with the engines working full speed astern another attempt was made to get the steamer off, but without success. No attempt was made to get out the anchors during this favorable opportunity of the first eight hours following the stranding, during half of which time the tug *Fearless* was available to assist. Had both bower anchors made fast to the stern with proper tackle been run out during this morning of the 20th, when at noon the rough sea with heavy surf began to roll in and give to the steamer the buoyancy indicated by her "bumping heavily at times," there is every probability that with a sufficiently heavy strain on the anchors and with the *Fearless* assisting on this first high tide, the steamer would have been gotten afloat and the enormous amount of damage and expense subsequently incurred would have been saved.

Even had she not been gotten afloat the bower anchors would certainly have

anchor with 4″ wire hawser attached to starboard quarter bitts was run out. *Restorer* keeping strain on line.

At 1.00 P.M. Str. *J. A. Cummings* arrived with anchors and other gear.

At 2.30 another hawser was passed to *Restorer* and made fast to port quarter bitts.

At 4.08 a 2¾ ton stream anchor with a 4″ wire and 8″ manila hawser made fast to port bow was run out and hove taut.

At 7.40 P.M. the hawser to this anchor parted. The *Restorer* kept a strain on hawsers all day. Vessel bumping heavily at times. Stevedores came on board.

August 24th. Started shifting cargo from forward aft to keep ship's stern down.

At 11.45 A.M. a 7 ton anchor with a 7½″ steel wire attached was placed in ship's boats lashed together ready to be run out.

At 12.45 P.M. started to discharge case oil to *Pioneer*.

At 2.23 P.M. the 7 ton anchor was run out from starboard quarter and a heavy strain put on it with 3 fold tackles of 6″ manila rope—*Restorer* going ahead on towline. Vessel heaving on anchors and *Restorer* keep- assisted to prevent her from going broadside on the beach, which happening greatly increased the damage and the difficulty and expense of the subsequent salvage operations.

The failure to take timely and efficient steps to hold this steamer in her position unquestionably resulted in a tremendously increased loss.

A study of the operations as conducted by the salvage officers will show what should have been done by the ship's officers when the vessel did not come off the strand on the first high tide following the grounding. If the ballast tanks and the lower holds (after shifting of cargo to the 'tween decks) had been filled with water it would have minimized the vessel's pounding and avoided some of the serious damage caused thereby.

Third: **The lack of efficiency of steamers in pulling on a stranded vessel.**

During the entire period of stranding powerful steamers were continuously pulling on the steamer in the effort to get her afloat, to hold her in position, and to prevent her from going higher up on the beach.

The *Fearless, Manning, Maui* and *Restorer* (with an

ing strain on lines during the day. Vessel bumping heavily at times.

August 25th. *Manning* returned and at 5.30 P.M. wire hawser made fast.

Pioneer arrived with 12 x 12 logs to be used for lashing boats for use in getting out anchors. Stevedores employed shifting cargo. Strain kept on hawsers throughout day. Ship bumping at times.

August 26th. Commenced with rough sea and heavy swell. Ship striking heavily at times.

At 1.00 P.M. the 7½″ wire hawser on port anchor carried away.

At 2.55 P.M. ran out 7 ton anchor from starboard quarter attached to 600 feet 6½″ steel wire hawser, hove taut with heavy tackles. Ship lying with 5° list to port.

August 27th. At 8.25 discharging Honolulu cargo into *Pioneer*.

At 10.23 ran out a 3 ton anchor attached to wire hawser from port bow, hove taut.

At 1.55 P.M. ran out kedge anchor attached to 1000 feet grappling wire from port quarter. Heavy swell throughout the day. Ship striking heavily at times.

August 28th. Nothing

aggregate of 7746 H.P.), together with the engines of the *Manchuria* working full speed astern, were all at various times so employed. Notwithstanding their efforts, the *Manchuria* continuously moved higher up on the beach, as has already been shown. On the 20th (the day of the stranding), while the *Fearless*, *Manning* and *Maui* were pulling and the engines of the *Manchuria* were working full speed astern, the 9 inch hawser attached to the kedge anchor parted. This shows that at that time the steamer was moving away from the anchor. On August 23rd, with the *Manning* and *Restorer* pulling, another 12 inch hawser to an anchor parted from the same cause.

The record conclusively shows that with the very great combined horse power of all the vessels pulling, not only were they quite powerless to pull the steamer off the strand, but they did not succeed in holding her in position. On the contrary, all of the facts show that she gradually and continuously worked higher up on the beach under the influence of the tides and seas.

Fourth: **The superior efficiency of heavy anchors**

done for lack of gear. Ship striking heavily at times.

August 29th. Continued shifting cargo from starboard to port.

Salvage Officers Metcalfe and Pillsbury arrived and took charge of operations.

WHAT THEY FOUND

"Found Steamer heading S.½E. and lying nearly broadside to the trade winds and seas, which were coming in from the E.N.E.

The bow of the steamer was about 250 feet from coral reefs, which were bare at half tide and extended along and nearly parallel to the shore line, but distant therefrom some 1500/2000 feet.

On the inside of the vessel there were from 16 to 17 feet of water at mean high tide, with the same amount around the bows and for a distance of 60 feet from the stern; for the rest of the distance on the outside of the vessel there were from 18 feet to 22 feet. The vessel was listed some 6° or 7° to port or off shore, and was swinging back and forth in the bed she had made from 1° to 2°, or rather the bow was swinging, whereas the stern seemed to be hard on the ground.

The water line was about 26½ feet aft and 24 feet for-

properly laid and made fast with suitable gear, when combined with an intelligent utilization of the lifting power of the tides and seas to get the vessel afloat.

At the time the salvage officers arrived the steamer had worked from her original position much higher on the beach and was lying amongst the coral reefs, imbedded 10 feet aft and 8 feet forward. Although it would seem to the uninitiated that in the nine (9) days since she had gone aground the steamer would have worked up on the beach as far as she could go, it will be noticed the first steps taken by the salvage officers were to hold the ship in her then position and make her steady to prevent further damage. The deep tanks were filled with water. The cargo was shifted from the lower holds and these holds were filled with water to weight the ship down. Some 5500 tons of water (exclusive of that contained in the double bottoms) was put in her, and by this means all movement of the ship was stopped.

The next thing done was to lay out sufficient anchors and moorings to hold her fast in position and to prevent her working further

ward, showing that the vessel had bedded some 10 feet aft and 8 feet forward.

All of the water bottoms were full of water, as were the after deep tanks, while the forward deep tanks were only partly full.

The Chief Engineer reported that some of the pipe connections to the deep tanks were broken by the pounding and that the tanks could not be filled by the usual method and when they were partly filled, the water would slowly run out.

Some two or three hundred tons of cargo, mostly flour, from the forward holds had been shifted to the after holds to keep the vessel down by the stern. Captain Saunders also stated that cargo had been shifted from side to side to keep the vessel steady or give her a list from time to time, as it was thought best.

The Chief Engineer reported that the fresh water tanks under the engines commenced leaking soon after the vessel struck, so that the water was lost and that the domestic fresh water tanks in the after part of the ship were also leaking; that he had been obliged to get fresh water from Honolulu each day for use of crew and boilers, and up on the beach as she was lightened. It was not until all these anchors and moorings were properly laid and made fast and the ship securely held in place by means thereof that any attempt was made to float her. Then by the rapid lightening of the vessel through jettison of the coal and pumping out of the water and by a continuous steady strain on the anchor moorings as she lifted, she was gradually worked out into deep water.

An interesting diagram follows this report, showing the position of the various anchors used and the methods used in this difficult salvage operation.

Fifth: **The exorbitant demands for salvage compensation, founded on unjustifiable claims as to the value of the services rendered by them, often made by steamers for inefficient pulling services.**

A demand for salvage compensation in an amount of $300,000 was made by the S.S. *Restorer* on the grounds that she was the chief agent in the successful floating of the *Manchuria*. The court finally allowed her $30,000, which with the expense of the litigation made the total cost of her services $55,900.

that there was no place to keep the water. (At the time the drinking water was very brackish.)

The Chief Engineer also stated that the saddles under most of the double end boilers were broken, the stop valve on the port engine was broken, the strainers on the sea valves were nearly clogged, and that one of the strut frames in the starboard tunnel recess had been broken on the day of our arrival, shortly before we arrived.

The salvage officers upon examination found the conditions were as stated and further that the vessel was bearing very hard in the vicinity of the starboard struts, and the starboard shafting was apparently sprung and bearings disturbed. The vessel was also leaking considerably in the starboard bilges and in the tank tops under the boilers, but the water was controlled by the ship's pumps. . . .

Two of the ship's bower anchors were out on the port quarter, the full length of the ship's 6½″ and 7¼″ mooring wires, which were connected to the starboard aft chock and set up with heavy tackles. These had been laid by the ship's crew with the ship's boats. There

(See remarks, p. 64, as to one of the objections to employment of tug boats or other steamers to pull on a stranded vessel.)

As to the merits of the *Restorer's* contentions, the court said:

"The heavy salvage of "$300,000 claimed by the "libellant (*Restorer*) is "based upon its theory . . . "that the *Restorer* as oper-"ated by those in charge of "her, was the chief agent in "the operations which ulti-"mately effected the re-"moval of the *Manchuria* "from her dangerous posi-"tion to a place of safety. "I have no difficulty in "finding that this theory is "*not borne out by the evi-"dence.* I need not go into "a discussion of the grounds "for such conclusion more "than to say that my mind "has been irresistibly led by "the evidence in the case, "and by my examination " . . . of the steam winches " . . . of the *Manchuria,* to "the . . . conviction that to "the steam winches of the "*Manchuria,* acting upon "anchors fixed upon the "sea bottom, was mostly "due the work of moving "her from the bed in the "reef where she was lying, "which must be regarded as "by far the most difficult

were also two 2½ ton anchors out on the port beam, with a grappling rope to one and a piece of 3″ rigging wire to the other, connected to the ship's port quarter and a 2½ ton anchor on the port beam with a 4″ wire run to the port bow. Several other anchors, including the stream anchor, had been placed by the ship's boats, but the lines had parted and the anchors were, for the time being, at least, lost.

The Cable Steamer *Restorer* was anchored off the port quarter, with her stern distant from the *Manchuria's* stern some 1700 feet and connected with several parts of her grappling wire.

The U. S. Revenue Cutter *Manning* was also anchored on the port quarter, but a little more abeam than the *Restorer,* and connected with different pieces of wire that could be obtained, to the port quarter."

WHAT THEY DID

"The first thing to do was to make the vessel steady and thus prevent further damage. Accordingly cargo was shifted from Nos. 3 and 6 lower holds to the 'tween decks and these holds were filled with water.

The next thing to do was "and most important part of "the salvage operations."

The lower court also found against the contention of the *Restorer* that its services were effective in preventing the *Manchuria* from being carried further towards the shore by the sea, from the bed in which she lay when the *Restorer* arrived.

"The evidence showing, "as it does, that the steam-"ers *Manning* and *Maui,* "and the tug *Fearless,* with "3647 combined horse-"power, together with the "*Manchuria's* own engines, "and two of her anchors "were unable to pull that "ship from the reef *or to* "*keep her from going fur-*"*ther on,* and that before "the *Restorer* got any line "to the *Manchuria,* the ship "was firmly embedded, it "does not seem likely that "the *Restorer* was capable "of doing very much in the "way of steadying the "*Manchuria,* although no "doubt she aided to some "extent in that direction."

to arrange to lay out suitable anchors and moorings and concurrently lighten the ship of her cargo and coal or have her so that she could be lightened quickly when ready to float, but not so light that she would do any damage in the meantime.

Cargo was discharged from Nos. 2 and 7 holds, into the hulk *Melanchton* and the steam water boat *Pioneer,* and taken to Honolulu and placed in warehouse. As soon as the cargo was out of these lower holds, they were cleaned out and filled with water to keep the vessel steady while the cargo was being discharged and anchors run out, etc. **At the same time the deep tanks were filled from the top and kept full, so that there was a weight of water placed in the ship** over and above that contained in the double bottoms of some 5500 tons, which had the effect of stopping entirely her movement noted on our arrival. All of the cargo excepting some 250 tons, was discharged and stored in Honolulu. The 250 tons were left in the No. 1 lower hold to bring the ship on even keel and raise the stern over the shoal place there. . . . Dredger *Pacific*

was employed to lay the anchors and moorings, which could not be done with the ship's boats.

One of the ship's 7-ton anchors, which had been laid about 600 feet out on the port quarter, was picked up by the *Pacific* and after connecting it to 30 fathoms of 3⅛″ chain and a 4″ plow steel wire and a backing anchor, was laid out on the port quarter a distance of some 2700 feet. . . .

Strong trades and rough seas prevailed during the operations, which made the work of laying anchors slow and difficult. . . .

Five other heavy anchors were laid, all with backing anchors or car wheels taken from the cargo, and all but one with 15 to 30 fathoms of the ship's 3⅛″ chain, which weighs 4½ tons to the 15 fathoms.

These were laid out at an average distance of 1800 feet, and connected to the ship with heavy plow steel wires, and set up with three or four fold tackles to each. One of the 7 ton anchors laid prior to salvage officers' arrival, being out in a good direction some 600 feet and having a good hold, was not shifted, but was used in floating the ship. Besides there were the three smaller anchors

that were laid prior to arrival of salvage officers which were not changed, but strain was kept on them in floating the vessel.

While the discharge of cargo and placing of anchors was going on, pumps were installed in the different holds to pump the water out quickly, as well as to take care of any leak, should the vessel be holed when floating.

The bunker coal was hoisted from the lower bunkers to the upper decks where it could be quickly thrown overboard on the shore side when ready and plates were cut out of two of the coal chutes to facilitate matters. Some of the woodwork on the upper deck and in one of the rooms was also removed for the same purpose.

In the meantime divers were employed to clear the suctions and examine the bottom around and astern of the ship.

Numerous patches of coral being found about and astern of the ship, dynamite was used to break it up and loosen the bottom with apparently good results.

The Steamer *Restorer* was given a new position and as her grappling ropes were considered inadequate, she was connected to the

Manchuria with a new 4½″ plow steel hawser and also one of the *Manchuria's* heavy hawsers run along the starboard side from aft and shackled into the starboard chain. This was stopped aft, but arranged so that it could be let go, and after the *Manchuria* had been pulled far enough seaward, she could be swung around and towed to Honolulu, which was eventually done by these means.

The *Manning* took a position 8 points on the port beam and distant about 1400 feet. She was connected with a new 12″ manila hawser shackled into a bridle on her stern and the hawser run to the *Manchuria's* port quarter.

The U. S. Naval Tug *Iroquois* was given a position 4½ points on the port quarter and connected with a 14″ manila hawser obtained from the *Korea,* run from the *Manchuria's* starboard quarter, shackled into her own new 10″ manila hawser. In order to hold her in position with the strong trades and rough sea prevailing, one of the heavy moorings was so laid that she could take a tow line to and ride to it.

Seven heavy tackles were strung along the ship's decks and attached to that number of heavy wires con-

nected to the three small anchors.

On September 13th, all being in readiness, commenced throwing the bunker coal overboard; finished early the morning of the 14th, some 1730 tons being jettisoned, leaving about 300 tons in the bunkers.

On the afternoon of the 13th, commenced pumping out the holds. During the night of the 13th and 14th heavy strain was hove on the tackles and the vessel commenced to move astern; the three towing vessels also pulling moderately. At High Water of the 14th, vessel moved considerably, but about 2 P.M. stuck.

Up to this time she had moved astern and off shore some 250 feet and her position materially improved; whereas when she first began to float she pounded and rolled heavily, she moved very little now in consequence of the stern being pulled more toward the sea. As the movement astern had brought the towing vessels too much abeam, they were shifted on the afternoon of the 14th to positions more astern. Great strain was kept all the time on the different tackles, and dynamite was used freely until, on the 15th, the supply became exhausted.

Owing to the vessel's

sticking, it was decided to jettison some of the cargo remaining in No. 1 hold and on the forenoon of the 15th some 5435 packages of the flour were jettisoned.

On the 15th at High Water the vessel was, with the greatest effort, pulled some thirty feet astern and slewed more off shore. But the strain had been so great that one of the wires was stranded in a number of places. . . .

After a diver's examination of the bottom astern and about the ship and careful soundings had been taken, it was quite apparent that the position of the vessel had been greatly improved as a result of the two days' pulling and that after a fresh bed had been made the *Manchuria* could be floated.

On the 16th at 12.40 P.M. the vessel was floated, after pulling one hour and fifty-five minutes, and towed to the anchorage outside of Honolulu by the *Restorer*. . . .

During all the time, the trade winds blew fresh on shore and the sea was rough, which made the operations slow and at times somewhat dangerous."

SALVAGE REPORT AND COMMENTS

Str. *Pleiades*

Full Cargo Lumber and General Merchandise
Stranded August 16th, 1912, near Cape San Lazaro.

FACTS

August 16th, 1912, at 2 A.M. (tide two hours ebb) stranded. Sandy bottom. High water soundings 23 ft. aft, 19 ft. amidships, 17 ft. forward. Mean rise and fall of tide 5 ft. Sea moderate, but when near high water vessel pounded considerably. Vessel not leaking. At 7 A.M. kedge anchor (1200 lbs.) run out astern, but 6″ manila attached soon parted. Engines used, but vessel remained fast.

August 17th U. S. Str. *Denver* arrived. At 2.30 P.M. wire hawser was passed from *Denver* and made fast forward. At 3 P.M. started to jettison deck cargo. At 11.30 completed jettison of all aft deckload and two-thirds forward deckload. At 11.45 P.M. *Denver* commenced to pull, but vessel remained fast.

August 18th. At 12.10 A.M. wire hawser to *Denver* parted. At 8.30 A.M. commenced jettison of remainder deckload. Completed same at 11 A.M. At noon *Denver* started to haul out bower anchors. Soundings

COMMENTS

This is another example of the costly results following a failure to immediately take timely and efficient steps to hold a vessel in her original position of grounding until the time arrives to attempt to get her afloat.

This steamer stranded at 2 A.M. and it was not until 7 A.M. (5 hours later) that a kedge anchor was run out. Shortly after this anchor was gotten out, the 6″ line by which it was made fast, parted, showing the rapidity with which she was at that time (at the approach of high water) moving higher up on the beach.

When it was found the steamer could not be gotten afloat by the use of her engines full speed astern, the after ballast tanks should at once have been filled with salt water to assist in holding her hard on the ground until she had been made fast in her position by the use of her bower anchors.

Although these anchors were subsequently hauled out by the steamship *Denver*, it was not until after

around vessel corrected for high water gave approximately 17 ft.

August 19th. *Denver* completed hauling out bower and stream anchors to seaward. Port anchor with 72 fathoms chain out, starboard anchor 60 fathoms chain out. Stream anchor, 120 fathoms wire out.

August 20th. *Denver* left.

August 21st and 22nd. Crew employed removing cargo from holds to on deck. Heavy westerly swell, ship laboring heavily.

August 23rd. Special Salvage Agent, Captain Pillsbury, arrived. Soundings around vessel corrected for high water gave approximately 13 ft. showing she had gradually driven higher up on beach. Position of vessel, bow pointed out from beach 1 point. Cargo was jettisoned from after hold in an effort to slew the bow out towards the anchors and change position from practically broadside on to beach.

August 24th to 28th. Jettison of cargo from aft continued. Anchor cables hove on as required to bring bow out from beach. On the 26th Salvage Steamer *Greenwood* arrived at 7 P.M.

August 29th. *Greenwood* ran a 6″ manila line to starboard the futile attempt had been made to get the steamer afloat with the *Denver* pulling assisted by a jettisoning of deck cargo. The only result of this abortive attempt before the anchors were out to hold her was that, as lightened by the jettison, she worked higher aground than she would otherwise have done.

Had both bower anchors been first hauled out by the *Denver* and made fast to the stern with strong wire hawsers set up taut, and the forward deckload then jettisoned, this would have permitted the bow to swing in and have held the stern out to the sea. After this had been accomplished with a heavy strain put on the anchors at high water and with the *Denver* pulling and by jettisoning the after deckload and pumping out the ballast tanks, before she had worked so high on the beach, she might have been floated.

The movement of the vessel 500 ft. higher up on the beach between August 16th and August 31st shows the effective power of the swell and tides on a stranded vessel.

It will further be noticed that although the steamer *Denver* was unable to pull

board bow, then steamed out into deep water and dropped a heavy mooring anchor. Heavy purchase tackles were sent on board the *Pleiades* and made ready.

August 30th. A steel hawser was passed from the *Greenwood,* connected to anchor previously laid and strain put on tackles on *Pleiades.* The bow was then pointed out three points, but vessel had gone bodily further up on beach until soundings corrected for high water gave only 8 ft. on inside of vessel from forepart of bridge aft around stern, but vessel was imbedded in sand some 6 ft.

August 31st. Heavy Westerly swell. Crew employed in heaving on moorings. During day vessel forged ahead seaward about 15 ft.

Sept. 1st. At high water the heavy purchases were hove on, but owing to weather conditions it was decided to wait for another heavy wire from the *Greenwood.*

Sept. 2nd. All hands employed getting on board a second heavy steel hawser and making it fast.

Sept. 3rd. The second mooring was connected and strain was put on both at high water. Engines were run ahead about 15 minutes. the vessel afloat the day after she stranded (when she was lying in 17 ft. of water) yet the salvage agent by the intelligent use of anchors and cables not only shifted the position of the vessel from practically broadside on the beach to bow out to sea, but by use of the anchors and cables and the steamer *Greenwood* (a steamer of very small power) he was able to move the steamer gradually to deep water until she was afloat. This notwithstanding when he arrived the steamer had moved about 500 ft. further up on the beach than where she was lying when the *Denver* attempted to pull her off but was in only 8 ft. of water and imbedded 6 ft. in the sand.

This case is another illustration of the superior value of anchors and cables in the work of floating a stranded vessel and of the comparative futility of steamers pulling upon a vessel aground.

Steamer was moved ahead about 40 ft. 12.30 P.M. stopped heaving account falling tide. Cargo jettisoned from forward to lighten vessel.

The operation of heaving on tackles was continued at the larger high water each day until the steamer had been moved out in all from the time of first heaving on tackles—some 300 ft., and bow had been turned from broadside on beach to nearly right angles to beach.

Sept. 8th. At the larger high water vessel was easily floated by heaving on the tackles.

CONCLUSION

Three things are essential to the floating of a vessel stranded on a sandy bottom and not leaking seriously.

1st. To place a good anchor (one or more) well to seaward in the direction of deep water and made fast to the end of the vessel that it is desired to keep out or pull out.

When the vessel is lying nearly broadside on to the beach and two moorings are to be used, it is more effective in starting the vessel to lay one mooring not more than four points seaward of the end that is to be hauled out.

2nd. To keep the end of the vessel which points out, heavy until the anchor or anchors have been run out and made fast to hold same in position. This will make it easier to haul the vessel into deep water when this is attempted. It will also serve by keeping the vessel end on or nearly end on to the sea to make her lie easier and less likely to sustain damage.

3rd. In most cases it is better, if possible, to keep the stern out. By so doing, damage to the stern-frame, rudder, propeller, etc., is less likely to occur, in addition to which the propeller can be used to better advantage. This advantage consists not only in the greater power obtained from the use of the engines, but the propeller will often also have the effect of stirring up and enlivening the sand banked around the vessel and give to her just the movement necessary to release her from the bed in which she is lying.

INDEX

A

ACCIDENTS — PAGE
- on shipboard 30–33
- report of, by master 33
- form of report of personal injury 32

ADJUSTERS, to be consulted on loss or damage . . 47, 49

ADJUSTMENTS OF GENERAL AVERAGE
- proofs of loss 56

AGENTS, maintained in large seaports by insurance companies 48

ANCHORS OF STRANDED VESSELS
- how used and placed 61–62
- greater efficiency 65

AVERAGE
- particular distinguished from general 37–39
- bond, form of 41
- bonds, signed by consignees 40

B

BALLAST TANKS, filling upon stranding 60–61

BILLS FOR REPAIRS, should be itemized and checked before payment 53–54

BILLS OF LADING
- in general 18–21
- construction of 18
- "freight and all other conditions as per charter-party" 25–26
- freight, demurrage and other charges to be noted on face of 22–23
- notation as to cargo on deck 16
- notation as to damaged cargo 19

C

CARGO
- bill of lading for 18–19, 24–26
- damage, how surveyed 51–52
- examination before loading 18
- exemption clauses as to . . . . . 18, 25–26, note
- master relieved from responsibility, when . . . 15, note
- received in damaged condition 19
- stowage, care and custody of 15–16
- stowed on deck 16, 25
- requiring ventilation 14–15

CARGO—*continued*

PAGE

ship's receipt for 18
proofs of loss usually required 55
report of damage to 33
claims, prompt investigation necessary . . . 30–31, 33

CARVER, "CARRIAGE OF GOODS BY SEA"
Sec. 160 cited 25
Secs. 671, 675 cited 23, 24

"CESSER CLAUSE" IN CHARTER-PARTY,
effect of 21–23

CHARTER, where charterers permitted to load cargo
under 16–17

CHARTERER, right to require master to sign bills of
lading 24–25

CHARTER-PARTY
rules for loading vessel under 21–27
"Cesser clause" 21–23
clauses, effect of 21, 24–26
requiring master to sign bills of lading for
charterer 24–25
when conditions of, not included in bill of lading . 25–26

CLAIMS
for damage to vessel or cargo, master's report to
owners 33
against insurers, danger of delay in 47
for personal injury or damage to cargo . . . 30–31

CLAUSES
in bills of lading . . . . . 18, 25–26, notes
in charter-party 21, 24–26

COLLISION
duty to stand by in case of 13
U. S. Statutes relating to 13
Rules, knowledge of 6

COLLISIONS, cause of 7

COMPETITIVE TENDERS, WHEN REQUIRED
FOR REPAIRS UNDER HULL POLICIES 48

COMPULSORY PILOTAGE
American Law cited 10
under English Law 10–11

CONSIGNEES
may be required to furnish adequate average bond. 40–42
security from 40

COURSE OF VESSEL INDICATED BY CHART . 6

CREW PAGE
fitness and qualifications 1
discipline of 5
color-blindness 1
inspection of quarters 1
maintenance, cure and wages 3–4
sickness of, on voyage 2
death of seaman, personal effects 4–5

D

DAMAGE
to cargo 33
to docks 33
by water in extinguishing fire 52
DAMAGED CARGO
how received on vessel 19
report of survey 51–52
sale of, when necessary . . . . . 29–30, 52, note
DAMAGE TO VESSEL
appointment of surveyor 50
report of survey 51
sacrifice of ship's material 53
DEAD FREIGHT
lien of vessel for 22–24
under charter-party 21–24
DEATH
through negligence, misconduct, etc., U. S. Statute cited 8
of seaman, personal effects 4
inventory of seaman's effects to be made . . . 5, note
DECK CARGO, stowage of 16, 25
DEMURRAGE
lien of vessel for 22–24
accruing under charter, daily notice of readiness . . 27
DESTITUTE SEAMEN IN FOREIGN PORT . . . 5
DISCIPLINE OF CREW 5
DOCKS, damage to 33

E

ENGLISH MERCHANT SHIPPING ACT (1906), Sec. 34 cited . . . . . 3, note 2
EQUIPMENT OF VESSEL
when lost, how replaced 53
list of, for surveyors 51
"EXCEPTED PERILS" defined . . . . . 18, note

PAGE

EXCEPTION CLAUSES IN BILLS OF LADING . . . . . 25–26, note

EXTENSION OF PROTEST
- necessity for 36
- form of 35

F

FIRE
- damage by water to cargo or vessel 52–53
- damage, rules for handling 53

"FIRST AID" suggestions, stranded vessels 57–66

FITNESS AND QUALIFICATIONS OF CREW . . 1

FITNESS OF VESSEL FOR CARGO 13–14

FORMS
- account of sales 45
- accident report 32
- average bond 41
- deposit receipt 43
- extension of protest 35
- general average agreement 41
- general average account of sales 45
- general average deposit receipt 43
- general average guarantee of insurer 44
- log-book entries 11–12
- personal injury report 32
- protest 34
- protest, extension of 35

FREIGHT
- lien of vessel upon cargo for payment of 20–21
- when payable 19–20
- payable, "Cargo lost or not lost" 20
- when payable in full on damaged cargo 20
- payment by charterer before delivery of bills of lading 22
- prepayment of 20

FUEL, 25% extra supply required for seaworthiness . . 1

G

GENERAL AVERAGE
- defined 37
- distinguished from particular average 37–39
- account of sales, form of 45
- bond, form of 40–41
- claims against insurers, part of 47
- contributing values of cargo 44
- damage by water in extinguishing fire on board . 52–53

GENERAL AVERAGE—*continued* PAGE
damage or sacrifice of ship's material 53
deposit receipt, form of 43
expenditures 39–40
duty of shipowner and master 40
guarantee of insurer 43–44
guarantee of insurer, form of 44
losses 37–39
losses contributed to by all interests at risk . . . 37
port of refuge expenses 56
proofs of loss, statement of 56
provisions in charter-party 26
rules for valuing cargo 46
security required of consignees before delivery . . . 40
stranding cases 56
deposit, purpose of 40
deposit, proper amount of, how to be determined . . 42

H

HARTER ACT (U. S. Statute) cited . . . . 14, 26, note
HOSPITAL TREATMENT FOR INJURED SEAMEN 2
HOSPITALS IN U. S. PORTS, list of . . . . 2–3, note
HULL POLICIES, making of repairs to vessel 48

I

INJURIES BY "WILFUL WRONGDOING" . . 3, note 2
INSPECTION OF VESSEL, master's duty as to . . 13–14
INSURANCE, adjustment of losses under 47
INSURANCE AGENTS
duties and powers 48–50
instructions for dealing with 49–50
powers of, how limited 49
INSURANCE BROKERS, consulted as to loss or damage 47, 49
INSURERS, when liable for repairs to vessel 48
INTOXICATION, injury due to . . . . . 3, note 2
INVENTORY OF PERSONAL EFFECTS OF DECEASED SEAMEN . . . . . 5, note
INVESTIGATION TO DETERMINE CAUSE OF INJURY OR CARGO DAMAGE . . 31, 33

L

PAGE

LEAD, constant use of 7, 8

LIABILITY
- no admission of, by master 33
- of vessel for maintenance and cure 3–4

LIEN ON CARGO UNDER "CESSER CLAUSE"
- in charter 21–22

LLOYD'S AGENTS
- description of 48–50
- duties and powers 48–49

LOADING
- cargo in damaged condition 19
- examination of cargo upon 18
- fitness of vessel for cargo 13–14
- master's duty as to 15–16
- under care of management . . . . . 15, note
- under charter 21–27
- usefulness of survey on 14

LOADING UNDER CHARTER
- rules for 21–22, 27
- when done by charterers' stevedores 16–17
- notice of readiness on demurrage 27

LOG-BOOKS
- required by U. S. Statute 11–12
- penalty for alterations 12

LOOKOUTS
- in general 8, 9
- extra precautions in fogs 9

M

MAINTENANCE AND CURE, when vessel liable for . 3–4

S.S. "MANCHURIA" (Salvage Report) 68

MARINE INSURANCE
- hull policies, special conditions 48
- collection of claims 47
- notice of loss to be given to insurer promptly . . 47–48
- proofs of loss required 47

MARINE SURVEYORS
- duties and powers 50–51
- report of surveys 51–52

MASTER, DUTIES OF
- to navigate and manage vessel safely 6–7, 10
- to navigate in presence of pilot 10–11
- to enforce discipline of crew 5

MASTER, DUTIES OF—*continued* PAGE
to keep log-book 11–12
to station lookouts 10
to inspect ship frequently 13
to notify owners of disasters 28
to protect owners by sale 30
to preserve ship and cargo 28
to prevent smuggling 5
to supervise loading in all cases 16–17
to report all accidents to owners 32–33
to stand by in collisions 13
as to stowage and care of cargo 15, 18–19
as to order of stowing special cargo 17
as to destitute seamen 5
as to sick and disabled seamen 2–3
as to repair bills 54
as to passengers 28
as to strandings 57–66
MASTER'S
night order book 5
power to sell vessel and cargo 29–30
responsibility for passengers and cargo 28
responsibility for personal effects of deceased seamen . 4–5
responsibility for signing bills of lading . 18–19, 24–25
MASTER'S LIABILITY
for careless or negligent navigation 8
to fine for incorrect log-book 12
MEDICINE CHEST 1–2

N

NAVIGATION
of vessel by master 6
master to be always in charge of 6–10
NOTATION IN SHIP'S RECEIPT AND BILL OF LADING as to damaged cargo 18–19
NOTE OF PROTEST BY MASTER 33
NOTICE OF CLAIM FOR LOSS OR DAMAGE TO INSURER 47

O

OFFICERS
on watch, duties of 6
and crew, maintenance and cure 3–4
OUTSIDE VESSELS, needed assistance not to be refused from 65–66

OWNERS PAGE
negotiations between insurance company and . . 49–50
authority to master 33
lien for freight and other charges 20–21
notice of disaster to 28

P

PARTICULAR AVERAGE
defined 37
distinguished from general average 37–39
losses 37–39
PASSENGERS TO BE SAFEGUARDED AT ALL TIMES 28
PERISHABLE CARGO 15–16
PERSONAL EFFECTS
disposition of upon seaman's death 4
inventory of . . . . . 5, note
PERSONAL INJURIES
aboard ship 3–4, 30–31
and sickness of crew 2
PERSONAL INJURY, form of report 32
PILOTS, duties and responsibility of 6, 9–11
S.S. "PLEIADES" (Salvage Report) 83
PORT OF REFUGE, expenses, statement of 56
PRE-PAYMENT OF FREIGHT, under B/L clauses . 20
PROOFS OF LOSS
damage to cargo, statement of 55
general average, for adjustment of 56
ship damage, statement of 55
PROTEST
master to note upon arriving in port 33
when and where noted 33
form of noting 34
extension of, how made 35–36
extension of, form of 35

R

REPAIRS
careful checking of 54
handling of bills against ship 53–54
REPATRIATION OF DESTITUTE SEAMEN . . 5
REPORT OF SURVEY
on cargo 51–52
of ship 51
RULES OF THE ROAD, master to understand . . . 6

S

PAGE

SAFETY
- of vessel and cargo, duties of master 28
- of passengers, duties of master 28

SALE
- of wrecked vessel 29
- of damaged goods at auction . . . . . 52, note

SALVAGE, reasonable price to be agreed upon 66

SALVAGE
- Reports and comments
  - S.S. "MANCHURIA" 68–82
  - S.S. "PLEIADES" 83–86
  - comments in conclusion 86–87

SALVAGE COMPANIES
- operate by combining power of steamers with natural forces 66–67
- details of operating salvage steamers 67
- maximum efficiency of equipment obtained by . . . 67

SEAMANSHIP, simple rules of good 7–8

SEAMEN
- death of, personal effects 4–5
- repatriation of destitute 5
- sick and disabled while at sea . . . . . 2, 3, note

SEAWORTHINESS
- defined 14
- of vessel, master's duty to see to 13–14

SHIPPING COMMISSIONER, report of seamen's death to be made to 4

SHIP'S MATERIAL
- damage or sacrifice of 53
- and stores lost, list for surveyors 51

SHIP'S RECEIPT FOR CARGO 18

SMUGGLING BY CREW 5

SOUNDINGS, necessity of frequent 7

SPECIAL CARGO, HOW LOADED 16–17

SPECIAL EQUIPMENT FOR CARGO 14–15

STEVEDORES, when appointed by charterers . . . 16–17

STOWAGE
- care and custody of cargo 15
- of deck cargo 16, 25
- order of 16–17

STRANDED VESSELS, "FIRST AID" MEASURES PAGE
general circumstances for application 57–58
effect of sea and tides, power for harm 58
effect of sea and tides, power for good 58–59
steps to be taken immediately upon taking ground . 59, 64
danger of stranding on intermediate flood-tide . 59–60
use of ballast tanks 60–61
comments by salvage experts . . . 60–61, note, 86–87
use of anchors of stranded vessels 61–62
proper placing of anchors 62
operations after anchors are out 62
avoidance of excessive strain on steamer's tackle and cables 62–63
proper time for attempting to float vessel 63
difficulty in handling ship's anchors—suggestions as to ways and means 63–64
STRANDED VESSELS, WHAT TO AVOID
lightening of ship before making vessel fast . . . 64
use of tugs or steamers as tow-boats 64
tow-boats and anchors compared as to efficiency . 64–65
specially equipped salvage steamers as tow-boats . 64, note
objections to use of ordinary steamers 65
value of assistance from outside steamers . . . 65–66
STRANDING EXPENSES, adjusting of general average for 56
STRANDINGS, cause of 7
SURVEY
of vessel and cargo 28, 50–51
of vessel, report of 51
damaged cargo, report of 51–52
SURVEYORS
duties and powers 50–51
examination of repair bills 54
written report as to fitness of ship 14, 51
SWEAT, prevention of damage by 15

T

TIDES AND SEA, effect of, upon stranded vessels . 58–60, 63
TIMEKEEPER
necessity for 54
repair bills checked against account of 54

U

UNDERWRITERS
Board of Marine 48
represented by Lloyd's agents 48–50

UNDERWRITERS—*continued*
negotiations with, by owner's insurance broker or adjuster . . . . . PAGE 49
Consul to act in port where no agent available . . 50

U. S. CONSULS
duties in regard to destitute seamen 5
death of seaman, report to 4
duties of, as to sick and disabled seamen . . . 2, note
request for appointment of surveyor in foreign port . 50

U. S. CRIMINAL CODE, Sec. 282 cited 8

U. S. MARINE HOSPITAL SERVICE, use of . . . 2

U. S. MARINE HOSPITALS, list of, in U. S. ports . 3, note

U. S. STATUTES
Bills of Lading Act (August 29, 1916), Sec. 25 cited 22–23
Criminal Code (March 4, 1909), Sec. 282 cited . . 8
Harter Act (February 13, 1893), cited . . 14, 26, note
as to collisions 13
as to log-book entries 11–12

V

VENTILATION OF CARGO 14–15

VESSEL
cargo (see CARGO)
charter-party permitting charterers to direct loading . 16
crew (see CREW)
when damaged, survey necessary 50–51
equipment, fuel and stores 1
fitness to carry passengers and cargo 13–14
floating, after being stranded 63–65, 67
liability for maintenance and cure of disabled seamen . 3
liability for wages of disabled seamen 4
lien upon cargo for charges of 20–21
loading of, supervision by master 15
loading under charter 21–27
under charter, notice of readiness to load 27
manning of 1
master (see MASTER)
medicine chest aboard 1–2
proofs of loss as to damage 55
report of survey on 51
responsibility for cargo in sound condition 18
salvage of, by outside steamers 65–66
special equipment for cargo 14–15

VESSEL—*continued*
stranded (see STRANDINGS) PAGE
ventilation required on voyage 15
wrecked, power of sale 29–30

W

WAGES OF INJURED OFFICERS AND CREW,
vessel liable for 3–4
WATCH, change of officers on 6
WATER USED IN EXTINGUISHING FIRE,
damage by 52–53
WHARVES, damage by vessel, report of 33
"WILFUL WRONGDOING," injury due to . . . 3, note 2
WORKMEN'S COMPENSATION ACTS affecting
liability of shipowners . . . . . 3, note 1
WRECK, when necessary to sell without owner's consent 29–30

3 6105 017 358 586